

# THE *Soybean Digest*



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August 1960						
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Soybean Meetings  
Hotel Peabody  
Memphis, Tenn.

JULY • 1960

VOLUME 20 • NUMBER 9



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# THE Soybean Digest

REG. U. S. PAT. OFF.

Official Publication of American Soybean Association and  
Soybean Council of America, Inc.

HUDSON, IOWA

Vol. 20

July, 1960

No. 9

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## THE SOYBEAN DIGEST

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**Objectives of the American Soybean Association** include the bringing together of all persons interested in the production, distribution and utilization of soybeans; the collection and dissemination of the best available information relating to both the practical and scientific phases of the problems of increased yields coupled with lessened costs; the safeguarding of production against diseases and insect pests; the promotion of the development of new varieties; the encouragement of the interest of federal and state governments and experiment stations; and the rendering of all possible services to the members of the Association.



## EDITOR'S DESK

By GEO. M. STRAYER

**LOOK FOR HEAVY OIL MOVEMENT** Efforts to have fats and oils placed on the list of commodities available to relief and charitable organizations for overseas distribution were not successful. But out of the approaches on this subject have come commitments to increased P.L. 480 activity on oil to compensate for it. And that activity seems to be under way already!

As I have pointed out on these pages repeatedly in recent months, the United States is the only country in the world where there is an overabundant supply of fats and oils. U.S. soybean oil is the cheapest-priced quality edible oil available in adequate supply any place in the world. Other supplies have been largely depleted now. Cottonseed oil has moved in great quantity, but the attention is now shifting to soybean oil.

Movement of U. S. soybean oil into world markets could well be the heaviest in history during the next few months. Recent purchases by Yugoslavia, Spain, and Pakistan, plus others in the mill would seem to indicate that problems during coming weeks may be those of making deliveries as fast as desired, and of the type of oil desired. This should be reflected in price.

Attendance of your editor at the International Association of Seed Crushers annual conference in London, where I am to present a paper in behalf of the U. S. soybean industry, will give me an opportunity to size up current supplies and demands. Early indications are that we may see large increases in coconut oil production in 1960—as the effects of the drouth in those areas wear off. But there is some question about the ability of coconut oil producers to compete with present-day low prices. I'll give you my analysis after the London meetings next month.

**COUNCIL BENEFITS ARE VAST** Without the Soybean Council of America to promote export markets for soybean oil what would beans be selling for today? And what would oil be bringing? Instead of 8½¢ oil might we not have 5¢ soybean oil? Or even 3¢ oil, as we had once in the past? Without the promotion of oil sales in Spain, Egypt, Pakistan and a host of other countries, conducted basically by the Soybean Council, there would not be enough tanks in the United States to hold the vegetable oil surpluses which would have accumulated.

Without the Soybean Council program we would be selling soybeans under P.L. 480 today, as is the case with wheat, cotton, tobacco and a host

of other farm commodities. Processing margins have been nonexistent in recent months. But what would they be if we had no P.L. 480 sales?

Abundant supplies of soybean oil, along with other fats and oils, in the United States, have been responsible for relatively cheap prices. U.S. soybean oil for a period of months has been the cheapest-priced quality edible oil in the world. These low prices have not been conducive to good processing margins.

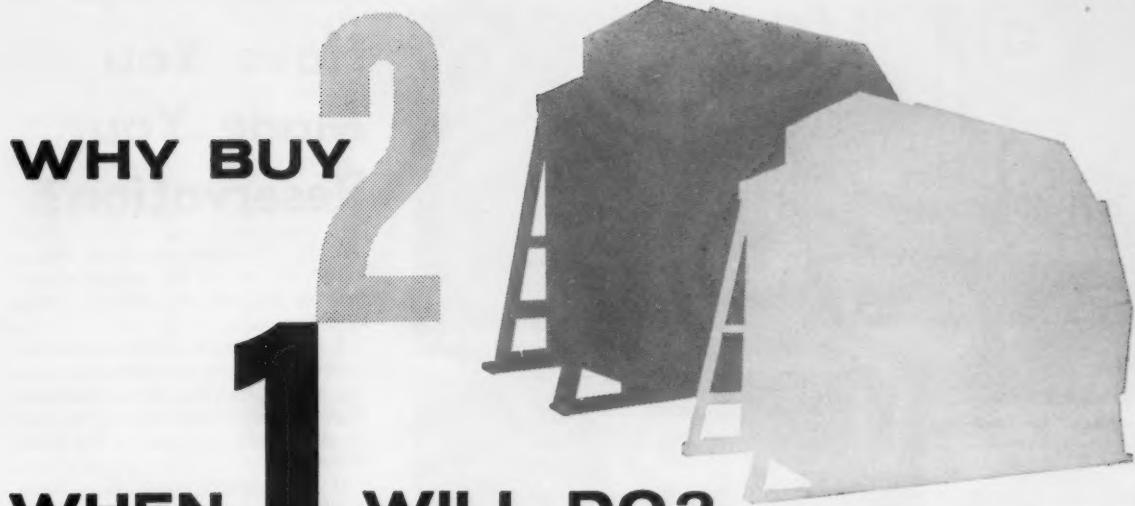
But where would we be today without P.L. 480 sales on oil? Without the large and consistent sales which have been made to countries which did not have the dollar exchange with which to buy, yet which offer huge markets for edible oils because they are the very areas where per-capita consumption is extremely small? What would soybean oil—and cottonseed oil, lard and butter—be selling for if it were not for P.L. 480 oil sales?

Up to this point there have never been sales of either soybeans or soybean oil meal under P.L. 480. We hope there will be no such sales for a long time to come. It is much more desirable to sell soybeans and meal for dollars.

Yet we must recognize that soybeans have absorbed about 20 million acres from other crops, that we have had no surpluses of soybeans because we have had ready markets for the meal and domestically consumed portion of the oil, with about one-half the oil going to export markets for dollars and the remainder of the oil going into world markets under P.L. 480. It has been a very practical and workable arrangement.

**ASA'S 1960 CONVENTION** The 1960 convention of the American Soybean Association may well prove to be one of the most important ever held. At this writing it is impossible to tell just what has developed in soybean acreage, for it is still so wet so many places that much planting is undone. However, it does appear we will have at least the acreage indicated by the Mar. 1 planting intentions report, plus as much additional as the weather would allow to be planted.

Convention plans are far advanced, and it is not too early to make your reservations. Make them now—directly with the Hotel Peabody in Memphis. Tell them you'll be attending our meetings and they'll have a place for you. Since the formal program starts off with a bang on Monday morning we do suggest you plan to arrive on Sunday—so you are ready for Monday morning's opening.



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## Memphis' Soybean Processing Plants



Ralston Purina Co.



Buckeye Cellulose Corp. extraction plant.



Swift & Co.



Cargill, Inc.

## Soybean Meetings:

# Have You Made Your Reservation?

HAVE YOU made your hotel reservation yet for the big soybean meetings to be held in Memphis Aug. 22-23?

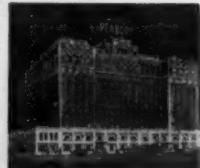
The 40th annual convention of the American Soybean Association and the annual meeting of the National Soybean Processors Association will be held jointly this year at the Hotel Peabody.

If you haven't made your room reservation better get it in without delay, to obtain your choice of rooms. Contact:

### Hotel Peabody Memphis, Tenn.

Tell the Hotel you are attending the ASA or NSPA meeting and they will have accommodations for you. But ... don't delay!

The Peabody is the hotel for conventions in the Midsouth. With excellent convention facilities, it is located in the heart of downtown Memphis, which is the



Hotel Peabody

THAT MEMPHIS is a leading soybean center of the South is proved by the fact that the city boasts four soybean processing plants that offer a substantial market for the rapidly expanding soybean production of the Mid-south. They are:

Ralston Purina Co., purchased from Buckeye Cellulose Corp. in 1958, produces several kinds of soybean meals for use in Ralston Purina animal Chows.

Cargill, Inc., completed in 1957, with a yearly crushing capacity of 8.5 million bushels and a storage capacity of 2.2 million bushels.

Swift & Co., which produces 44% protein solvent meal, is served by three transcontinental railroads and has easy access to all highways.

Buckeye cotton oil division of Buckeye Cellulose Corp., originally designed for extraction processing of cottonseed, but converted to soybeans, which it proc-

hub of all air, rail and highway travel in the south-central United States.

The hotel has 625 rooms with bath, and both guest rooms and meeting rooms are fully air conditioned. The Hotel operates four separate eating places, one open all night, where excellent food is served.

Here you will find "the unhurried charm of the Old South has kept pace with the industrial growth of the New South."

Producer and processor groups will hold separate sessions Monday and Tuesday mornings, and joint sessions in the afternoon. The National Soybean Crop Improvement Council advisory board will meet at the same time with separate sessions both mornings.

The joint annual banquet of the producer and processor groups will be held Monday evening, Aug. 22. Honorary life memberships in the American Soybean Association will be announced and presented at that time.

#### The Export Programs

Export programs of ASA and the Soybean Council of America, Inc., will get a big play this year, with a number of the men actually in operation of the programs appearing.

esses approximately 4 months each year. The unit produces both 44% and 50% protein solvent soybean meal.

The four plants have a daily capacity of nearly 80,000 bushels per day. They draw from southeast Missouri, Arkansas, Tennessee, Mississippi and northeast Louisiana, which produced in the neighborhood of 98 million bushels of soybeans—the greatest in soybean history—in 1959. An increase of 7% in soybean acreage in the area is expected in 1960.



**ASA OFFICERS:** Geo. M. Strayer, executive vice president and secretary-treasurer; Charles V. Simpson, vice president; and C. G. Simcox, president.

Speakers will include Howard L. Roach, president of the Soybean Council of America, Inc.; Fred Marti, director of the Council's overseas operations at Rome; Shizuka Hayashi, managing director of the Japanese American Soybean Institute at Tokyo; David R. Farlow, assistant to the executive vice president, ASA; and C. R. Weber, professor of farm crops, Iowa State University, who was in charge of the Council's soybean exhibit at New Delhi, India.

The sessions will wind up Tuesday afternoon with a panel discussion on factors that affect price trends, and a price forecast on 1960-crop soy-

beans by T. A. Hieronymus, professor of agricultural marketing at the University of Illinois.

Dr. Hieronymus has made the annual price forecast on ASA programs several times in the past, and these forecasts by him and other leading farm economists have become a popular feature.

Other speakers booked to date and their topics:

Conrad Leslie, Francis I. DuPont Co., Chicago, "Futures Markets."

Darrell R. Francis, first vice president, Federal Reserve Bank, St. Louis, Mo., "Agribusiness in the Midwest."



MEZZANINE floor plan showing meeting rooms and exhibit booths.

#### Some of Your Convention Speakers



Fred R. Marti

James Young

Howard L. Roach

C. R. Weber

Ward Collard

Siert Riepma

T. A. Hieronymus

Siert F. Riepma, president, National Association of Margarine Manufacturers, Washington, D. C., "The Margarine Outlook."

John W. Evans, past president, American Soybean Association, Montevideo, Minn.: "Factors Affecting the Relationship of Wheat and Soybeans."

Walter Goeppinger, chairman of the National Feed Grain Council, Boone, Iowa: "Factors Affecting the Relationship of Corn and Soybeans."

Arthur Garlow, department of rural economics, University of Arkansas, Fayetteville, Ark.: "Factors Affecting the Relationship of Rice and Soybeans."

#### Exhibit Space

There is still some booth space available for firms who wish to show their products or services at the convention, according to Geo. McCulley, ASA business manager. But you should not delay in sending

in your reservation if you want to be sure of having space.

Wire, phone or write: Geo. McCulley, business manager, American Soybean Association, Hudson, Iowa.

The following firms had reserved space at press time:

1—Shanzer Manufacturing Co.; 3, 4—A. T. Ferrell & Co.; 5—Albert Dickinson Co.; 6—Burrows Equipment Co.; 7, 8—Soybean Council of America, Inc.; 9, 10—Crippen Manufacturing Co.; 15—Aeroglide Corp.; 16—V. D. Anderson Co.; 22—California Spray-Chemical Co.; 23—Davenport Machine & Foundry Co.; 26—Hubert Phelps Machinery Co.; 27—Langston Bag Co.; 30—Urbana Laboratories; 32—Merrill Lynch, Pierce, Fenner & Smith, Inc.; 33—Seedburo Equipment Co.; 34—Signal Oil & Gas Co.; 35—Simon-Carter Co.; 36—Hot Spot Detector, Inc.; The Soybean Digest; 2—French Oil Mill Machinery Co.; 29—Columbian Steel Tank Co.; 25—Dabney-Hoover Supply Co.; 37—U. S. Rubber Co.

## Urge Minimum Trade Restrictions

REPRESENTATIVES of the U. S. oilseed producing and processing industries, meeting as an Agricultural Export Advisory Committee, said that any tightening of trade restrictions abroad can have highly adverse effect on this segment of American agriculture.

The industry representatives met June 21 with U. S. Department of Agriculture officials to exchange views regarding the U. S. position and actions at the forthcoming round of trade agreement negotiations (General Agreement on Tariffs and Trade) to be held in Geneva, Switzerland, from September 1960 through August 1961.

Committee members, who represent annual exports of well over half a billion dollars in oilseeds and oilseed products, including meal, urged negotiators to work toward minimum foreign restrictions on imports from the United States. They expressed concern regarding draft agricultural policies of the European Common Market countries, stating that if such policies should become effective it would mean a favoring of Common Market nations' production and processing industries and a weakened trade position for the U. S. oilseed and oilseed products industries.

The Committee was greeted by Administrator Max Myers of the Foreign Agricultural Service who explained the advantages to U. S. agriculture of using the multilateral

approach in attempting to obtain trade concessions from countries that import U. S. agricultural products.

Committee members attending were:

E. M. Bailey, A. E. Staley Manufacturing Co., Decatur, Ill.; Howard L. Roach, Soybean Council of America, Waterloo, Iowa; George M. Strayer, American Soybean Association, Hudson, Iowa; Fred R. Marti, Soybean Council, Rome, Italy.

Fred M. Seed, Cargill, Inc., and Albert Aschwendan, Archer-Daniels-Midland Co., Minneapolis, Minn.

Fred Baum, L. Pasternak & Co., and Richard D. Forti, Bunge Corp., New York, N. Y.

Eugene Brockenbrough, Institute of Shortening & Edible Oils, Inc.; Herbert Harris, American Farm Bureau Federation; Douglas Dies, National Institute of Oilseed Products; John Gordon, Bureau of Raw Materials; John S. Conner, National Soybean Processors Association; and Homer Brinkley, National Council of Farmer Cooperatives and National Grange, all of Washington, D. C.

Gustave Burmeister, assistant administrator, FAS, presided.

#### Plan New Inspection Building at Memphis

CONSTRUCTION will begin shortly on a new grain inspection department building on President's Island for the Memphis (Tenn.) Board of Trade, A. A. Williams, executive vice president, has announced.

Cost will be around \$50,000. The building will replace the inspection department at 808 Riverside Drive, built about 20 years ago. The building is designed to accommodate as many as 12 inspectors, compared to the present three inspectors with all their licenses and four with soybean and corn licenses.

#### New Research Grants To Foreign Countries

A GRANT for research aimed at finding new or improved uses for linseed and soybean oils has been made to the University of Helsinki in Finland by the U. S. Department of Agriculture. Utilization research on soybeans and flaxseed is conducted in the United States by the Northern Utilization Research and Development Division, Peoria, Ill.

The grant will finance a 5-year study by the Finnish university. R. E. Beal, Northern Division chemical engineer, proposed the study of continuous crystallization or freezing of linseed and soybean fatty acids, involving new concepts, to provide basic information for developing new methods of separating pure fatty acids from the oils. The research would take advantage of the difference in melting points between the fatty acid constituents of the oils. Total value of the grant for the 5-year period is 22,516,000 Finnish marks (\$70,640).

USDA's foreign research program, conducted by the foreign research and technical programs division of the Department's Agricultural Research Service, is paid for with foreign currencies accruing to the account of the United States from the sale of surplus agricultural commodities under Public Law 480. The Northern is one of four Utilization Research divisions in the Agricultural Research Service.

A grant for basic research aimed at developing new uses for soybean and linseed oils has been made to the Paint Research Station of the Research Association of British Paint, Color, and Varnish Manufacturers by USDA under its foreign research program.

The grant—for 32,442 pounds (\$90,977)—will finance a 5-year study of the properties of oil derivatives intended to widen use of the oils as industrial products. The Paint Research Station is at Teddington, Middlesex, England.

USDA has announced a grant to the Institute for Research on Animal and Vegetable Fats and Oils, Paris, France, for research to be done under USDA's foreign research program.

The grant totaling 264,640 new francs (\$54,008) will pay for investigations over a 3-year period of the properties and preparation of ketones. These are constituents of vegetable oils and animal fats that have wide industrial usefulness as lubricants, plasticizers, fungicides, and detergents.

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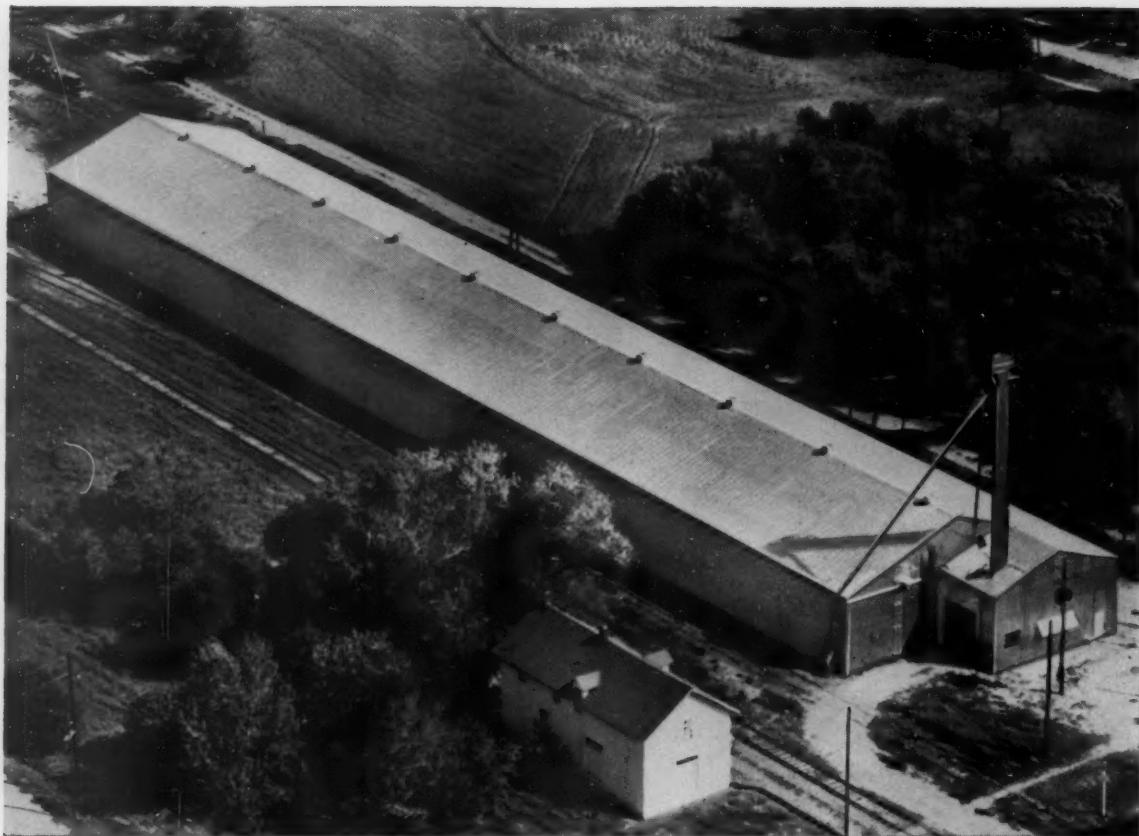
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# THE NEWS IN BRIEF

## THE CROP, MARKETS AND OTHER ITEMS OF NOTE

### Export Outlook Bright

Exports of soybeans for the year to date are now running 20 million bushels ahead of a year ago—107,952,013 bushels from Oct. 1 through June 24 compared with 86,394,819 for the same period a year ago, according to Agricultural Marketing Service inspection reports.

It is now generally recognized that exports of soybeans for the crop year ending Sept. 1 will exceed the 125 million bushels forecast by the U. S. Department of Agriculture and will likely exceed 130 million.

U. S. exports of edible oils and oilseed meals were also sharply up for the October-April period as compared with a year ago, according to USDA's Foreign Agricultural Service. U. S. exports of cottonseed and soybean oils at 754.1 million pounds for the period were a third larger than last year. Edible oil shipments under P. L. 480 declined by 43%, but this drop was sharply offset by the increase in dollar sales.

Exports of oilseed cakes and meal for October-April exceeded last year's exports by three-fourths, and exports of soybean meal were up a third, with major increases in shipments to West Germany, the Netherlands, Belgium, Spain, and Poland.

Last month's big news was the announcement by USDA of an agreement with Spain to finance sale of \$27.7 million worth of soybean or cottonseed oil (approximately 200 million pounds) under P. L. 480. First purchase authorization under the agreement was to finance the purchase of \$11 million worth (about 40,000 metric tons) of cottonseed or soybean oil.

USDA announced issuance of authorization to Yugoslavia to finance the purchase of a total of \$5.4 million worth of cottonseed or soybean oil, sales contracts to be made between June 21 and July 30, with shipments from U. S. ports between June 21 and Aug. 31. International Cooperation Administration has issued authorization to Israel for purchase of \$55,980 worth of U. S. soybeans. For further information on the export outlook see Washington Digest page 34.

Mainland China plans no substantial acreage increases for oilbearing crops this year, according to communist press reports. However, a considerable increase in production is apparently expected to be achieved by more efficient cultivation of oilseed crops.

Over 60 million pounds of farm-produced fats and oils are now used in the manufacture of plasticizers, and in the next 3 years this market should be half again as large as it is now, according to the estimates of Agricultural Marketing Service researchers.

Animal fats and soybeans, coconut, palm, and castor oils are the main fats and oils used in plasticizers. They provide the fatty-acid base of plasticizers, the agent that makes plastics soft and pliable. Output of plasticizers has increased swiftly the past few years.

### Increasing Plasticizer Market

### Outlook For Coming Months

A bigger than expected drop in the spring pig crop—16% instead of 12%—is forcing USDA to revise downward its lard forecast of 2,725 million pounds for the season. USDA estimates the lard cutback means increased consumption of soybean oil but not enough to affect price.

An expected drop in the fall pig crop, if present farrowing intentions are carried out, also means less lard than expected for the first half of the 1960-61 season.

May soybean crushings of 33 million bushels are slightly over the 32.5 million bushels per month needed to reach USDA's total estimate of a 400-million-bushel crush for the season that will end Sept. 1. May crushings brought the total to date to 271 million bushels compared to 279 million bushels this time last year. USDA says its 400-million-bushel estimate is not far wrong.

**Crop Not  
Yet All  
Planted**

Some soybean acreage was still to be planted July 1 and there were many reports that condition of the crop was below normal in Northern states. More than 10% of the soybeans remained to be planted in south central and southeast sections of Minnesota June 28, and development of soybeans was greatly retarded, according to the Minnesota crop reporting service. Soybeans averaged 3 inches in height in Minnesota compared with 7 inches last year.

Soybean planting was only 90% complete in Illinois June 28, and soybeans were expected to replace corn in some unplanted fields and flooded areas. They were below average in condition with stands slightly below normal, according to the state crop reporting service. In Indiana, the crop was reported a week later than usual. Soybeans were 96% planted in Kansas and planting was almost complete in the important producing areas of Michigan and Tennessee.

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Some soybean acreage remained to be planted in the south central and eastern districts of Iowa June 27, according to the state's crop reporting service. Early planted fields were reported to be in good condition.

**Foreign  
Trade Teams  
Visit U.S.**

A French team of industrialists is now in this country visiting soybean processing and mixed feed plants. The team of 26, headed by Jean Dreiss, an executive of the Sanders Co., arrived July 3 to be here for 3 weeks. The visit is sponsored by the Sanders Co. to acquire first-hand knowledge of methods employed by the U. S. feed industry.

A U. S. tour by a group of eight Spanish feed industry men and government officials will follow in August. They will visit soybean farms and plants in the Midwest and attend the soybean convention at Memphis, Tenn., Aug. 22-23, where they will meet leaders in the U. S. soybean industry. The tour will be sponsored by the Spanish office of the Soybean Council of America.

A recent U. S. visitor was Zelmon Leibovitz, representing the Hazaith Oil and Soap Industry of Israel, owned by the Leibovitz family. He discussed with members of the U. S. soybean industry the licensing of processes for the production of soybean products, particularly isolated soy proteins and soy flour. Israel is a leading importer of U. S. soybeans and soybean products.

Other recent visitors included Mr. and Mrs. R. Vandemoortele of Huileries Vandemoortele, Izegem, Belgium. The Vandemoortelles are among the pioneers of the soybean oil processing industry in Belgium. Their company is the only firm in Europe that markets and advertises soybean oil as such. At present, Huileries Vandemoortele imports 25,000 tons of soybeans annually, but Mr. Vandemoortele hopes to expand the capacity of his plant three times over, which would mean a much larger import.

**New Oil  
Trading  
Contract**

The New York Produce Exchange introduced a new contract for trading in soybean oil futures on July 18. The new contract provided for delivery in licensed warehouses, which may be located in Midwestern and Eastern states, on a price basis FOB New York City. Heretofore, the only contract available provided for delivery on an FOB Decatur, Ill., basis and put Eastern state growers and crushers at a disadvantage because of the rail freight structure, according to the Exchange.

The new contract is expected to stimulate trading by mills in the Southeast and the ultimate users of soybean oil who have plants in the New England and Middle Atlantic states.



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JULY, 1960



# Uses of Soybean Meal

(Staff Written)

**I**N SPITE of the publicity that has been given at times to the many and varied uses for soybeans, the lion's share of soybean meal still goes into livestock feeds. In fact, livestock are fed just about all the tremendous tonnage of soybean meal produced—and still are not fed up to recommended levels for protein concentrates!

In 1959, 96% of soybean meal went into livestock feed, about the same percentage as in other recent years.

Practically all the balance, 3.9%, was exported.

This left only 1/10% of the meal produced to supply all other uses—both in human food and industry.

And of the 96% of the meal that was fed to livestock last year, 86% was absorbed by the mixed feed industry. Ten percent was fed as straight soybean meal in farm rations.

The fact that the U. S. production of soybean meal is used almost 100% by various classes of livestock is not too surprising. The 12-fold growth of the soybean crop and industry over the past quarter century—from 50 million bushels to almost 600 million—has been closely related to the growth of the livestock industry and changes in feeding practices. One could not have taken place without the other. The growth of the crop has been tied in with:

1—The steady rise in production of mixed feeds.

2—The increase in animal units, especially poultry and hogs.

3—The increase in the rate of feeding of protein concentrate per animal unit.



HOGS are now second among classes of livestock in consumption of soybean meal.

But while the production of soybean meal has been expanding rapidly, production of other protein concentrates has shown little change. About three-fourths of the increase in production of protein feeds from 4 to 12 million tons annually has taken place in soybean meal. Dr. J. W. Hayward of Archer-Daniels-Midland Co., Minneapolis, says the annual production of all non-soya protein is only about 900,000 tons greater than it was 20 years ago.

Last year soybean meal furnished three-fourths of all the oilseed meals produced in this country. And it furnished over half of all protein concentrates including animal products such as tankage, meat scraps and dried milk.

Twenty-five years ago high-protein feeds amounted to only 3% or 4% of all concentrates fed. Today high-protein feeds constitute more than 10% of concentrates fed. The greatest increase in the feeding of

protein concentrates has been in poultry and hogs with poultry now taking by far the largest quantity of protein feeds—over a third—followed by dairy cattle, hogs and beef cattle.

But less protein is still generally fed than is recommended in standards of nutrition, even though we come much closer to feeding adequate amounts than we did 20 or 30 years ago. Ralph D. Jennings, Agricultural Research Service, U. S. Department of Agriculture, estimated the protein deficiency for all kinds of livestock in 1955-56 at from 2.3 to 3.3 million tons in terms of soybean meal. By far the largest deficiency is in hog feeding.

The formula feed industry was comparatively small until the beginning of World War II. Since then, it has expanded rapidly. The industry produces most of the feed for broilers, more than half the feed for all poultry, and about a fourth of

HIGH-PROTEIN FEEDS: QUANTITY AVAILABLE FOR FEEDING, HIGH-PROTEIN FEED-CONSUMING ANIMAL UNITS, AND QUANTITY PER ANIMAL UNIT, UNITED STATES, AVERAGE 1953-57, ANNUAL 1950-59

Year beginning	Quantity available for feeding (in terms of 44% protein soybean meal equivalent) <sup>1</sup>						Animal units fed annually	Quantity per animal unit		
	Oilseed meal			Animal protein						
	Soybean meal	oilseed meal	Other meals <sup>2</sup>	Total	Grain protein	Total				
Oct. 1	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		
Average 1953-57	6,298	2,418	8,716	3,030	859	12,605	102.4	246		
1950	5,546	2,251	7,797	2,466	1,069	11,332	101.3	224		
1951	5,527	2,697	8,224	2,638	817	11,679	102.0	229		
1952	5,455	2,624	8,079	2,657	767	11,503	100.2	230		
1953	4,965	2,876	7,841	2,955	826	11,622	100.2	232		
1954	5,428	2,381	7,809	2,977	853	11,639	101.5	229		
1955	6,042	2,429	8,471	3,264	897	12,632	104.2	242		
1956	7,093	2,257	9,350	3,061	857	13,268	103.1	257		
1957	7,962	2,146	10,108	2,914	859	13,881	103.0	270		
1958 <sup>3</sup>	8,968	2,234	11,202	3,027	890	15,119	107.3	282		
1959 <sup>3</sup>	9,000	2,494	11,494	2,995	869	15,358	109.0	282		

<sup>1</sup> Conversion factors to obtain quantity available for feeding in terms of soybean meal equivalent and animal units fed annually are given in the Grain and Feed Statistics, March 1959. <sup>2</sup> Cottonseed, linseed, peanut and copra meals. <sup>3</sup> Preliminary. USDA's The Feed Situation, November 1959.

the concentrates fed to dairy cattle.

Last year, 86% of soybean meal was utilized in formula feeds compared with 99% of peanut and copra meals, 81% of animal and fish by-products, 61% of linseed meal, and 28% of cottonseed meal.

In the past, it was the practice to supply about half the total protein in poultry feeds in the form of animal proteins. But animal protein supplements in poultry feed have to a large extent been replaced by soybean meal. More suitable meals with lower fiber content are now produced, and we have learned how to properly supplement the meal for use in poultry feeds.

Poultry lead all livestock in the consumption of soybean meal, as they have since the beginning of meat production in this country. Hogs are now second.

Dairy cattle led hogs in the total consumption of soybean meal in the early years, but hogs have led dairy cattle most years since 1945. Beef cattle have led dairy cattle in total soybean meal consumption in recent years, with some usage by sheep and "other livestock."

The rapid growth of the dog food industry has resulted in an increasing quantity of soybean meal going into dog foods as a valuable source of protein. It is also used in the rations of rabbits and other pets, fur bearing animals and quails and pheasants.

The principal uses of cottonseed meal have always been in feeding cattle and sheep, with minor amounts being fed to poultry, hogs and other livestock. Soybean meal leads cottonseed meal in total quantity fed to all types of livestock except sheep.

The principal livestock uses of linseed meal are for feeding dairy cattle, beef cattle and for hogs. Linseed meal is widely used as a feed for dairy cattle, both for its protein content and for other characteristics such as palatability, conditioning and slightly laxative effects.

Copra meal is fed mostly to dairy cattle, some to poultry.

On the other hand, animal by-products such as tankage and meat scraps and fish meal are fed mostly to hogs and poultry. Skim milk is fed on farms and dried skim milk largely to hogs, calves and poultry.

Soybeans are processed by three methods, the screw press and the hydraulic being the two older. Solvent extraction is the newer method and now accounts for about 95% of total production of meal. There are few hydraulic mills still operating on soybeans.

CONSUMPTION OF SOYBEAN MEAL, BY KINDS OF LIVESTOCK, 1926-58  
(1,000 tons)

Year beginning Oct. 1	Dairy cattle	Beef cattle	Sheep	Poultry	Hogs	Other livestock	Total
1926	....	....	....	32	....	....	32
1927	....	....	....	61	....	....	61
1928	20	....	....	94	....	....	91
1929	20	....	....	103	....	....	114
1930	20	....	....	....	....	....	123
1931	30	....	....	83	20	....	133
1932	20	....	....	73	20	....	113
1933	20	....	....	69	10	....	99
1934	80	....	....	105	82	....	267
1935	234	....	....	300	70	10	614
1936	75	....	....	335	102	20	532
1937	100	....	....	458	141	20	719
1938	250	....	....	620	125	25	1,020
1939	276	35	....	655	250	60	1,276
1940	213	60	....	955	168	95	1,491
1941	263	30	....	1,090	292	110	1,785
1942	206	70	....	1,685	993	120	3,074
1943	775	125	....	1,655	633	135	3,323
1944	740	180	....	1,845	772	90	3,627
1945	977	340	....	1,740	498	100	3,655
1946	610	375	....	1,635	1,005	120	3,745
1947	573	100	10	1,799	746	155	3,383
1948	540	200	10	2,250	958	200	4,158
1949	361	130	6	2,663	1,167	190	4,517
1950	401	595	25	3,055	1,305	337	5,718
1951	530	335	10	2,970	1,475	320	5,640
1952	726	195	20	2,940	1,434	195	5,510
1953	434	240	20	2,810	1,291	170	4,965
1954	552	600	20	2,835	1,201	220	5,428
1955	534	595	20	3,235	1,413	245	6,042
1956	730	910	20	3,505	1,633	295	7,093
1957	782	981	21	3,756	2,106	316	7,962
1958 <sup>1</sup>	840	1,159	25	3,968	2,565	343	8,900

U. S. Department of Agriculture Production Research Report No. 21. <sup>1</sup> Preliminary.

SOYBEAN MEAL: SUPPLY AND DISPOSITION, 1921-58  
(1,000 tons)

Year beginning October	Stocks, October 1 <sup>2</sup>	Production <sup>3</sup>	Supply			Exports <sup>3</sup>	Disposition	
			Imports	Total	Exports <sup>3</sup>		Food and industrial uses <sup>4</sup>	Use for feed <sup>5</sup>
1921	....	1.3	42.1	3.4	....	....	....	3.4
1922	....	3.8	12.3	16.1	....	....	....	16.1
1923	....	2.4	21.1	23.5	....	....	....	23.5
1924	....	7.6	18.3	25.9	....	....	....	25.9
1925	....	8.6	19.8	28.4	....	....	....	28.4
1926	....	8.3	23.9	32.2	....	....	....	32.2
1927	....	13.7	47.7	61.4	....	....	....	61.4
1928	....	21.5	69.5	91.0	....	....	....	91.0
1929	....	40.7	73.5	114.2	....	....	....	114.2
1930	....	98.6	24.0	122.6	....	....	....	122.6
1931	....	114.7	18.6	133.3	....	....	....	133.3
1932	....	84.3	28.3	112.6	....	....	....	112.6
1933	....	73.9	25.0	98.9	....	....	....	98.9
1934	....	220.4	64.2	284.6	....	....	18.0	266.6
1935	....	613.1	20.0	633.1	....	....	19.0	614.1
1936	....	495.8	55.7	551.5	....	....	20.0	531.5
1937	....	724.1	15.5	739.6	....	....	21.0	718.6
1938	....	1,064.4	12.3	1,076.7	435.0	22.0	....	1,019.7
1939	....	1,348.8	12.1	1,360.9	62.3	23.0	....	1,275.6
1940	....	1,543.4	8.1	1,551.5	25.4	35.0	1,491.1	....
1941	....	1,844.9	0	1,844.0	19.7	40.1	....	1,785.1
1942	....	3,200.3	0	3,200.3	20.9	105.5	....	3,073.9
1943	....	3,446.0	0	3,446.0	16.1	107.1	....	3,322.8
1944	....	3,698.6	0	3,698.6	10.0	61.4	....	3,627.2
1945	....	3,837.3	( <sup>6</sup> )	3,837.3	1.0	181.4	....	3,654.9
1946	....	4,086.4	0	4,086.4	141.7	199.3	....	3,745.4
1947	....	3,832.7	0	2,832.7	795.7	353.8	....	3,383.2
1948	....	31.6	4,330.5	3.2	4,365.3	7150.6	943.9	4,157.5
1949	....	13.3	4,585.6	26.1	4,625.0	747.4	25.0	4,517.4
1950	....	35.2	5,896.7	32.8	5,964.7	7181.1	30.0	2,718.1
1951	....	31.5	5,703.7	24.1	5,763.3	41.8	30.0	5,640.0
1952	....	51.5	5,551.3	41.1	5,643.9	46.8	30.0	5,510.3
1953	....	56.8	5,050.6	15.6	5,123.0	66.5	30.0	4,964.9
1954	....	61.6	5,704.8	0	5,766.4	271.7	30.0	5,427.5
1955	....	37.2	6,545.8	0	6,583.0	400.4	30.0	6,041.3
1956	....	111.3	7,509.6	.1	7,621.0	443.2	30.0	7,093.1
1957 <sup>10</sup>	....	54.7	8,284.3	1.4	8,240.4	300.0	30.0	7,962.3
1958 <sup>10</sup>	....	48.1	9,507.9	( <sup>6</sup> )	9,556.0	512.2	30.0	8,955.3
1959 <sup>10</sup>	....	58.5	....	....	....	....	....	....

<sup>1</sup> Stocks at crushers' plants. Not reported prior to February 1949. <sup>2</sup> Prior to January 1949, derived from census data on crushings; January 1949 to date, compiled from Animal and Vegetable Fats and Oils (59) and Fats and Oils (60). <sup>3</sup> Meal only. Prior to 1938, not separately reported. <sup>4</sup> Partly estimated. <sup>5</sup> Residual. Includes small quantities utilized for food and industrial purposes for years prior to 1934. <sup>6</sup> Less than 50 tons. <sup>7</sup> Includes military relief shipments abroad. <sup>8</sup> Feb. 1, 1949. <sup>9</sup> Beginning January 1949, estimated use of meal for industrial use only. Production of flour for food and industrial uses reported separately. <sup>10</sup> Preliminary. Technical Bulletin 1183, U. S. Department of Agriculture.

Forty-one percent protein meal is made by the screw press process, and is now used to a large extent in feeding ruminants, and also in dog foods.

Forty-four percent and 50% protein meals are made by the solvent extraction process. With the 44% protein meal, the hulls are retained. With the 50% protein meal they are removed.

The 50% meal is used mainly by the poultry industry, particularly for high-energy broiler feeds.

The hulls, which are removed in the manufacture of 50% protein meal, are mostly fed to ruminants although some are used as carriers for mico-ingredients.

#### Exports of Meal

Exports of soybean meal have been increasing in recent years, and totaled 500,000 tons in the marketing year 1958-59. This was double the meal exports of 5 years ago.

Meal exports are expected to be greater in 1959-60 than they were last year, and to grow in years to come. The livestock feeding industry is thought to be on the eve of great development in many countries abroad.

Canada has been our leading export customer, taking almost half of our meal exported last year, with Cuba in second place. Venezuela is also a good meal customer in this hemisphere.

Our leading European customers for meal last year were Italy, Netherlands, Spain, Norway, Germany and Belgium-Luxembourg, in that order. The Philippines were our only substantial customer in Asia.

Since 1929, the United States has exported more cake and meal than she has imported. In 1958, total exports of cake and meal were 570,000 tons, of which 512,200 tons were soybean meal, and the balance linseed meal. Imports of meal totaled 162,000 tons, mostly cottonseed meal (127,500 tons) and copra meal (30,600 tons).

#### Food and Industrial Uses

Most meal used in industry or as human food is further processed either as isolated soy protein or as soy flour and grits.

Isolated soy protein is obtained from solvent extracted flakes by dissolving the soy protein chemically, then precipitating it to separate it from non-protein solubles. The resulting product is 90%-95% protein.

One of its most important uses is in paper coatings. It is also used in

#### TOTAL SUPPLIES, OILSEED MEALS, 1958-59 (tons)

Soybean	9,556,000
Cottonseed	2,352,000*
Linseed	487,000
Peanut	77,000
Copra	147,000
Total	12,614,000

#### ALL PROTEIN CONCENTRATES USED IN FEED, 1958-59 (tons)

Soybean cake and meal	8,955,000
Linseed cake and meal	417,000
Cottonseed cake and meal	2,198,000
Peanut cake and meal	75,000
Copra cake and meal	146,000
Gluten feed and meal	1,044,000
Tankage and meat scraps	1,415,000
Fish cake and meal	512,000
Dried milk products	110,000
Other milk products	960,000
Total	15,832,000

Approximately 50 million pounds of edible and industrial soy products were produced last year from the protein fraction of meal.

The high fertilizing value of meal has long been recognized in the Orient—for rice and truck crops—where that is its principal use. But in the United States the amount used for fertilizer is negligible. It is too valuable for other purposes. It has been used to a limited extent for many years in fertilizers for lawn and golf courses. It is a good source of potash and phosphorus, but its principal value is as a source of nitrogen.

Plastics have received wide publicity at times as an outlet for soybeans, and it is feasible to use soybean meal in the production of several different types of plastics. But little if any is being so used at the present time.

#### Harold Abbott of Funk Brothers Seed Co. Dead

HAROLD A. ABBOTT, 80, former manager of the soybean department of Funk Bros. Seed Co., Bloomingdale, Ill., died at his home at Winterhaven, Fla., May 28.

Mr. Abbott had served as advisor and consultant at Funk's since his retirement in 1956. He joined Funk

Bros. in 1935, coming to the firm after 36 years as a member of the Albert Dickinson Feed & Seed Co. in Chicago.

Mr. Abbott pioneered the manufacture of commercial poultry feeds in 1903 when he established a formula feed department for Albert Dickinson Co.

He contributed greatly to the launching of the American Feed Manufacturers Association as a founding member and for some 30 years he served AFMA as an officer, a member of the executive committee or as a director. He was president for three terms, in 1918, 1919, and 1932.

Mr. Abbott served as a director of the National Soybean Processors Association 1943 through 1948. From 1951 through 1959 he served as NSPA treasurer and also as a member of the executive committee. During World War I he represented the poultry feed industry in the National Food Administration.



H. A. Abbott

the production of special adhesives and in waterproof paints. Its greatest potential is in the food field.

At the present time the market for isolated soy protein absorbs the protein fraction of the meal from about 3 million bushels of soybeans annually, but the potential is much greater. Its principal competitor is casein.

A mechanically refined protein contains 50% protein and retaining the solubles and insolubles contained in solvent extracted flakes, finds wide usage in plywood adhesives, boxboard adhesives and specialty laminating.

Soy flour and grits are produced from specially selected, cleaned soybeans by first cracking and removing the outer bran layer or hull and then processing under carefully controlled conditions with or without removal of the oil fraction. There are several types including full fat, defatted, low fat, high fat and lecithinated flours.

Soy flours have a number of industrial uses including plywood adhesives, papers, coatings and sizes, and insect sprays.

Soy flour and grits (also called soy protein) are of growing importance as a low-cost source of balanced food protein for use in such products as baked goods, breakfast cereals, candies, cookies, snacks, prepared mixes, sausage meats, and baby foods; also in institutional feeding.

They are also widely used in dog and pet foods.

# New Soybean Varieties for Ohio

By P. E. SMITH

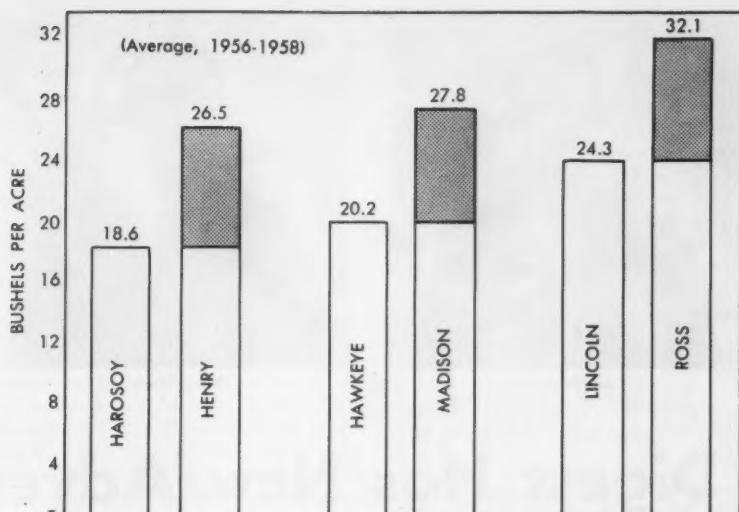
Associate Professor of Agronomy,  
Ohio State University,  
in Ohio Farm and Home Research

THREE NEW soybean varieties—Henry, Madison, and Ross—have recently been developed at the Ohio Agricultural Experiment Station. These varieties will enable farmers who have experienced losses due to *Phytophthora* root rot to eliminate this risk in production.

Besides their resistance to root rot, the varieties have averaged about 8 bushels more per acre than susceptible varieties when grown on heavily root rot infested soils.

Foundation seed of the new varieties was produced in 1959 and will be available to registered seed producers for 1960 plantings. Ample seed for the production of certified seed should be available in 1961.

Henry is of the same maturity as Harosoy, while Madison matures at about the same time as Hawkeye. Ross matures the same time as Lincoln. Each of the new varieties is recommended for the same general purpose and the same areas of the state as those of the same maturity classification. However, the greatest advantage from the use of the new varieties will be in areas where root rot has been a serious problem.



HOW THE THREE new varieties compared in yield with standard soybean varieties.

The yields, percent oil, percent protein, lodging, and dates of maturity do not differ greatly from Harosoy, Hawkeye, and Lincoln where root rot is not a problem. The plant and seed characteristics of the new varieties are listed in the table.

Henry is a pure line selection (H21793-7) from the cross of Richland × (Illini × Dunfield) made at the Ohio Experiment Station in 1949. Madison and Ross are pure line selections (H20771-9 and H24157-4) from the cross Monroe × Lincoln made at the Ohio Experiment Station in 1948. These new varieties were tested by a number of state experiment stations in the North Central region and at the United States Regional Soybean Laboratory.



AREAS OF ADAPTATION OF NEW OHIO SOYBEAN VARIETIES

To precede winter wheat	Full season
(Northern)	Henry Madison
(Central)	Henry Madison Ross
(Southern)	Henry Madison Ross
	Henry Madison Ross

APPEARANCE OF NEW OHIO SOYBEAN VARIETIES					
Variety	Pods	Flower	Seed size (seeds/lb.)	Seed color	Scar color
Henry	Gray	Purple	2439	Yellow	Gray
Madison	Gray	White	3086	Yellow	Brown
Ross	Brown	White	2766	Yellow	Black

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Art Hutchison



Ray Mooney



R. E. "Cap" Hutchison

## Digest Has New Advertising Men

CHANGES in the advertising representation of the Soybean Digest with the retirement of R. E. Hutchison and the appointment of new publishers' representatives are announced by Geo. M. Strayer, editor of the Digest.

The new representatives will be: Art Hutchison, 228 N. La Salle, Chicago, Ill., who will be in charge of the Midwest territory for the Digest. Associated with him will be David Hanley.

Ray Mooney & Associates, 6032 Graystone Drive, Sylvania (Toledo), Ohio, who will have the Ohio, Michigan and East Coast territory.

Art Hutchison (no relation to our previous representative) has been engaged in advertising in Chicago for the past 5 years. Previously, he was in educational book publishing and assistant foreign sales manager for Quaker Oats Co.

Art Hutchison is a graduate of Northwestern University and he attended Northwestern Law School. His hobbies include yacht racing. He is secretary of the Great Lakes Cruising Club. He was an army tug-boat captain in India during World War II.

Art Hutchison's father is George Hutchison, who was known to the trade as an employee of Albert Dickinson Co. for many years. In 1915, the Dickinson Co. sent the senior Mr. Hutchison to Mukden, Manchuria, to investigate the soybean crop which was then relatively unknown in this part of the world, and the German solvent processing



David Hanley

plant which was just then coming into use.

Mr. Hanley is engaged in advertising space sales with Geyer-McAllister Publications, who are publishers of Office Management, Geyer's Dealer Topics and other publications.

He is a graduate of Loyola University at Chicago. He saw 2 years overseas duty with the U. S. Army in Heidelberg, Germany.

Mr. Hanley's first job after college and military service was with the Chicago Air Club, which he and his brother co-founded as a service to aircraft owners and pilots.

Mr. Mooney started selling advertising in 1948. He left the field to join Western Electric Co. to sell the Dew line in 1953, and returned to the advertising field in 1954.

He holds a B. S. degree in physical education from Springfield College, Springfield, Mass. He is married and has two children.

The changes in representation are effective Aug. 1.

### Served Since 1942

Ewing Hutchison as head of the Ewing Hutchison Co., 35 E. Wacker Drive, Chicago, became a representative for the Soybean Digest in 1942, less than 2 years after the Digest was founded. During his years of service "Cap" has become widely and favorably known in the soybean industry. He has attended most if not all of the American Soybean Association conventions since his appointment.

Associated with Cap were E. E. Yeck until his death in 1958, and John Hendrickson, who retired in 1959.

Mr. Hutchison has announced that failing eyesight will compel him to

discontinue business activities. His office will be closed in July.

Mr. Hutchison has always claimed a twofold interest in soybeans—as a space salesman for the magazine and also as a grower of soybeans, for he has been raising soybeans on his farm in Illinois since 1930. He has seen the soybean industry grow from scratch to a 575,000,000 bushel crop, and has always insisted on quoting figures to justify his enthusiasm! And he frequently expresses his belief that "you cannot truly understand any industry if your viewpoint is limited to only one sector. In soybeans you have growers, marketers, processors, manufacturers, and all the rest of them, each with his own problems; and they must all work together if the industry is to make real progress." The American Soybean Association has contributed greatly to this purpose.

Mr. Hutchison was associated with N. W. Ayer & Son, an advertising agency in Philadelphia, for 15 years; (with time out for service in the infantry during World War I); was western advertising manager of the American Legion Monthly for 4 years; 2 years with Dartnell Publications in Chicago; and in 1932 started his own office as a publishers' representative. He has maintained his office at the same address for more than 28 years.

His enthusiasm for soybeans seems to grow greater year by year. As he often puts it, "the more you learn about soybeans, the more you respect and admire them." We have seen a small industry grow rapidly into a big one. The future holds even greater possibilities than any of us have yet realized; witness the increasing number of new soybean products introduced year after year.

# Announce County Support Rates

THE U. S. DEPARTMENT of Agriculture has announced 1960-crop soybean county support rates.

The rates are based on the 1960-crop national average support price of \$1.85 per bushel. This is the same as the rate for the 1959 crop.

The method followed in determining the 1960-crop county rates is the same as in previous years. There is little change in county support rates from those for 1959 production. There is no change in the premium-and-discount schedule. Terminal rates are not established for soybeans.

Except for moisture content, which cannot be more than 14%, minimum requirements for support eligibility correspond to requirements for No. 4 grade soybeans. Soybeans to be eligible for support under the 1960 operation must be produced in 1960. Price support will be carried out as in the past through farm-and-warehouse-stored loans and purchase agreements. Loans and purchase agreements will be available from harvest through Jan. 31, 1961. Maturity dates for nonrecourse loans will be May 31, 1961. Earlier maturity dates may be set for specific areas because of local storage conditions.

Following are the ranges for 1960 county support rates for grade No. 2 soybeans in seven states which accounted for most of U. S. production in 1959, in all cases the same as 1959 rates:

1960-crop range of rates grade No. 2 soybeans (per bushel)	
Arkansas .....	\$1.82 (all counties)
Illinois .....	1.85 to 1.92
Indiana .....	1.83 to 1.90
Iowa .....	1.78 to 1.86
Minnesota .....	1.71 to 1.80
Missouri .....	1.78 to 1.85
Ohio .....	1.83 to 1.87

Copies of county rates are being sent to State Agricultural Stabilization and Conservation (ASC) Offices. Copies also will be available in the Grain Division, CSS, USDA, Washington 25, D. C.

## Ten-Year Anniversary of Margarine Law Repeal

JULY 1 is the 10th anniversary of the repeal by Congress of the 10¢-per-pound tax on margarine. The passage of the National Margarine Act of 1950 marked the commencement of a period of fair competition for colored margarine in interstate commerce and in most states.

Production of margarine has increased from 862 million pounds in 1949 to the all-time high in 1959 of 1,611 million pounds. Production for the period January-April 1960 was 6.8% ahead of 1959.

The 10-year period since the repeal of the old federal margarine taxes and restrictions has been marked by a growth in the acceptance of margarine. Per capita consumption, on a national average, has increased from 5.8 pounds per person in 1949 to 9.2 pounds per person in 1959.

The chief ingredients of margarine are highly refined vegetable oils. American-produced soybean oil and cottonseed oil are the major vegetable oils used. Corn and peanut oils are also used.

By far the largest source of fats and oils used in margarine is the American soybean. Soybean oil used in margarine reached a new peak of 1,094 million pounds (refined basis) in 1959 and constituted 85% of all the fats and oils used in margarine.

Ten years after the Act of 1950 there are still restrictions on the sale and use of margarine. The consumer cannot buy colored margarine in Wisconsin and Minnesota. Six states—Wisconsin, Minnesota, Idaho, Utah, North and South Dakota—still maintain per-pound taxes. The U. S. Navy cannot buy margarine for table use, although other branches of the military can. There are various restrictions in state laws on dealers, state institutions' use of the vegetable spread and use by public eating places.

## Smith Heads Tri-States Oil Mill Association

R. E. SMITH, Yazoo Valley Oil Mill, Inc., Greenwood, Miss., was elected president of the Tri-States Oil Mill Superintendents Association at the 35th annual convention at Biloxi, Miss., June 5-7. He succeeds Frank L. McDonald, Planters Manufacturing Co., Clarksdale, Miss.

Frank Quinn, Minter City Oil Mill, Minter City, Miss., was elected first vice president; Walter Johnson, Memphis Cotton Oil Mill, Memphis, Tenn., was elected second vice president; and O. D. Easley, Southern Cotton oil division, Wesson Oil & Snowdrift, Memphis, Tenn., was reelected secretary-treasurer. Mrs. Easley was reelected corresponding secretary.

The 1961 meeting of the association will be held at the Edgewater Gulf Hotel, Biloxi, Miss., June 11-13, with N. L. Pugh, Southern cotton oil division, Wesson Oil & Snowdrift, Newport, Ark., as general chairman.

The association also voted to meet in Biloxi in 1962, at the Buena Vista Hotel June 10-12.

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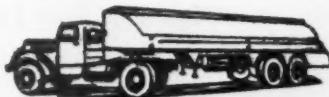
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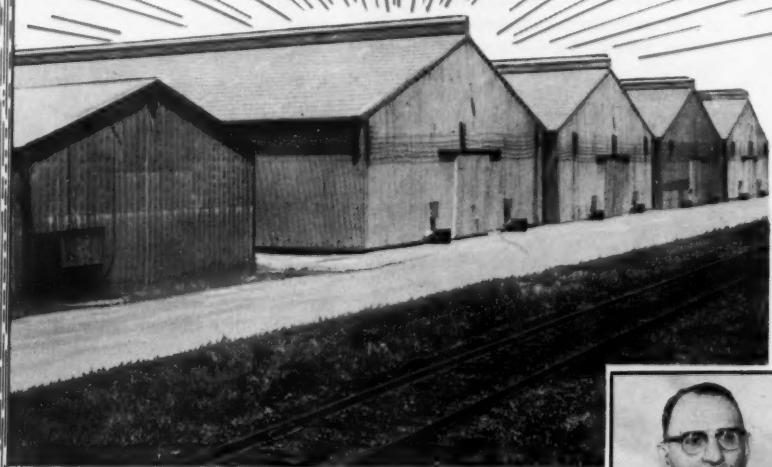
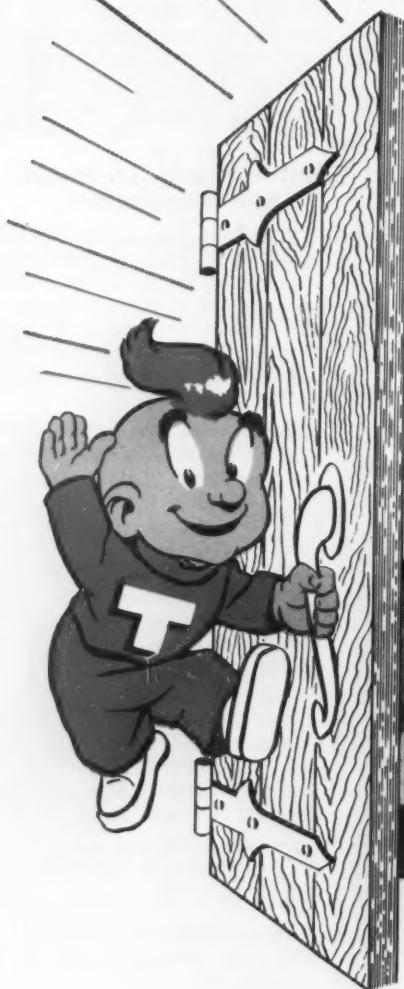
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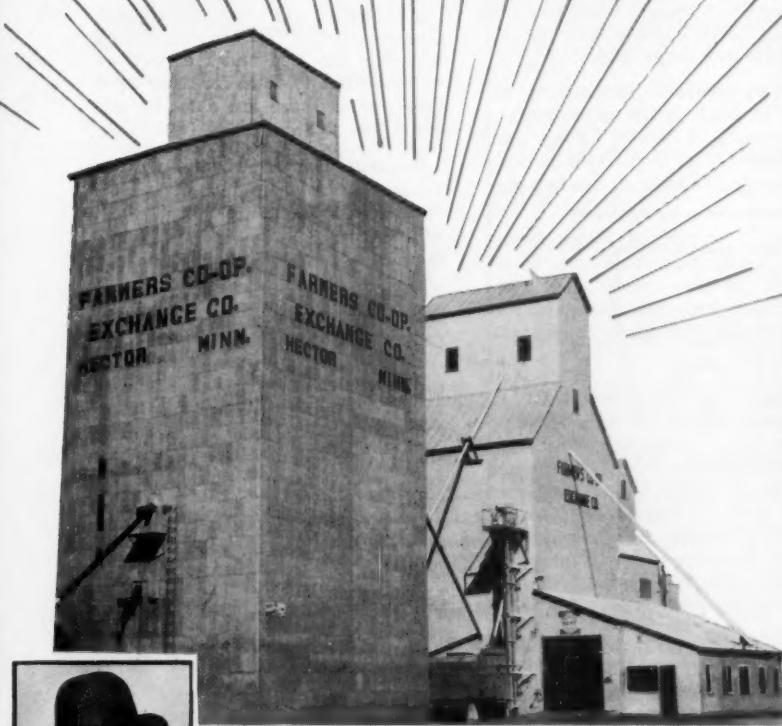
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## CROP REPORT

## **Crop Condition Some Below Normal**

ALTHOUGH planting of the soybean crop was nearing the end, there were still some acres of cropland to be planted in most northern soybean states in late June.

Nearly the whole area had been short of good planting weather due to frequent rains and wet soils and the planting season was 1 to 2 weeks late.

There was a wide variation in crop condition, and it was reported behind normal many places. There was plenty of time for the crop to recover, and weather conditions in following weeks will determine yields.

Soil moisture was adequate to excess in nearly all northern states.

Planting dates were more nearly normal in southern and East Coast states, with only that part of the soybean crop following small grains still to be planted. But many southern areas were reporting dry weather with the crop in need of rain.

Our observers were inclined to believe that the total soybean acreage will be above the 24.6 million estimated by the U. S. Department of Agriculture in March.

Reports from Soybean Digest correspondents:

**Delaware.** J. H. Phillips, Townsends, Inc., Millsboro (6-20): Normal planting date. Some increase in acreage. Adequate to heavy moisture in some areas.

**Florida.** E. N. Stephens, county agent, Pensacola (6-20): Planting date normal, same acreage as 1959.

Too dry lately to break previously planted small grain land.

**Illinois.** J. E. Johnson, Champaign (6-21): General outlook for the crop not too unfavorable. Seeding will average later than normal. Stands on whole about normal. Have some increase in acreage which does not indicate total bushels will be increased over that of 1959.

Frank Anderson, Stewardson (6-20): Am finishing 150 acres of beans this evening. 2 weeks behind time all spring. Most everybody is done planting and starting to hoe and cultivate.

John H. Butterfield, Pana: Planting 2 weeks late, 15% still to be planted. Acreage increased 10%. Many beans have had hard rains immediately after seeding. Some stand impairment.

**Indiana.** Clark F. Baker, West Lafayette (6-19): Planting 1 week to 10 days late. Believe no change from corn acreage to soybeans in this area or change from original intended acres. Nothing has taken place as yet which would decrease possible yields. Few days dry weather to permit cultivating will solve any weed control problem.

**Iowa.** Roger W. Leinbach, county agent, Rockwell City (6-17): Planting date normal, slight increase in acres. A very few fields where crust prevented beans from coming through to be replanted. Moisture adequate. Some fields yellow.

**Louisiana.** Mark H. Brown, Lake Providence (6-21): Planting date

normal. About same acreage as 1959. 75% of crop excellent, 25% affected by dry weather.

**Minnesota.** Chas. V. Simpson, Waterville (6-21): 10% increase in acreage due to late season for corn planting. I question whether we will wind up with any extra overall production though. We are still selling soybeans for seed and I expect we will continue to do so for some little time yet as there are a lot of wet areas just south of us.

**Missouri.** Carver Brown, Laddonia (6-20): Acreage up 10% over 1959. 15% of crop still to be planted. Whole crop late, some stands irregular, some will be replanted.

Arthur E. Frank, Dannen Mills, Inc., St. Joseph, Mo. (6-20): Planting a week or possibly 2 weeks late. A definite increase in acreage. This increase will go up if weather clears to allow more river bottom land to be planted. Plants are up to a good start. Most fields are unusually clean and free of weeds.

**Nebraska.** Dale K. Luther, county extension agent, Kearney (6-20): A slight acreage increase from 1959. Some fields need to be replanted due to local flooding. Crop has been delayed due to wet, cool weather. Weeds will be a problem if farmer can't get in fields soon.

**Ohio.** G. G. McIlroy, Irwin (6-20): Planting date normal or slightly later. 5% increase in acreage. Surface moisture good but for year to date we are short over 7 inches rainfall. Condition of crop normal or better. We have had showers at right times to get good germination and emergence.

**North Carolina.** Paul Keller, Clayton (6-18): Planting 2 weeks late. Some acreage will be planted after small grain. Weather has been cool and dry. Surface moisture needed.

**Texas.** Harold D. Loden, Paymaster Farms, Plainview (6-20): Acreage decrease by estimated 25% from 1959, due to rain and hail. Land will go mostly in grain sorghum. Beans now growing are probably better than average.

**Ontario.** K. A. Standing, Ontario Soya-Bean Growers Marketing Board, Chatham (6-20): Decrease in

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acreage. 10% acreage to be planted yet, 10% may be replanted due to excessive moisture. All soybean area has had excessive rainfall. Late areas may not bother to replant. Condition of crop 2 weeks to month behind.

### Ban Soybeans with Crotalaria on Coast

EAST COAST soybean processors have established a policy of refusing to buy any lots of soybeans that contain crotalaria seed, according to reports reaching the Soybean Digest.

The seed, which is somewhat smaller than soybean seed, has been established in laboratory tests to be highly toxic to poultry and livestock and to stunt their growth.

So far, soybeans contaminated with crotalaria seed have been found only in North and South Carolina, and Virginia and Georgia. Crotalaria makes a heavy viney growth that is seen particularly along the roadsides in parts of the South.

Processors wish to avoid any loss to poultry and livestock raisers through the presence of crotalaria seed in feed, and they also want to keep it out of the export market.

Heads of North Carolina farm agencies have passed unanimously a resolution urging farmers to stop planting crotalaria, which is grown extensively in certain parts of the state for soil conservation and improvement, according to R. L. Lovvern, director of research at the North Carolina Agricultural Experiment Station.

"Research shows that crotalaria seed in any form or amount can be harmful to poultry and livestock," says Dr. Lovvern. "Evidence also shows that present grain harvesting procedures make it impossible to keep poultry and livestock feed free of crotalaria seed if that crop infests corn, sorghum, or soybean fields at harvest time."

The North Carolina farm leaders stated in their resolution: "Changes in harvesting procedures have caused crotalaria species to become an increasing proportion of foreign matter in feed grains, particularly corn and soybeans. Apparently adjustments cannot be made in present combines and picker-shellers to completely remove these seeds."

"A major part of the problem arises from the fact that seed from crotalaria species will lie dormant in the soil for a number of years,

then germinate and reproduce. Thus once the crop is allowed to make seed the problem of crotalaria control continues for years."

"Weed control procedures are available that are believed to be adequate to destroy volunteering crotalaria plants in corn. There is

no immediate prospect of a satisfactory herbicide for this use in soybeans. Consequently, planting soybeans for harvest on fields known to be contaminated with crotalaria should be avoided. Stray plants that may appear should be removed by hand."

## Do you Know...

that we used 250,000 bushels of soybeans to make the trainload (45 tank cars) of soybean oil we shipped in May? Most of these soybeans were purchased from you through your local cooperatives in North Iowa.

(See page 27)



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**AT ITALIAN mixed feed conference in Rome, left to right: Giorgio Mortari, secretary general of Assalzoo; Dominic J. Marcello, Soybean Council director for Italy; Prof. Bartolo Maymone, conference chairman; Piero Borrone, president of Assalzoo; and Jake L. Krider, vice president, Central Soya Co., Inc., Fort Wayne, Ind.**

## 200 Attend Mixed Feed Conference at Rome

THE THIRD annual mixed feed conference sponsored by the Italian Association of the Mixed Feed Producers (Assalzoo) in cooperation with the Soybean Council of America was held in Rome June 6-9.

Among the over 200 persons in attendance were Assalzoo industrialists and technicians who produce more than 60% of Italy's mixed feeds, representatives of mixed feed manufacturers' associations of the Common Market countries, as well

as Italian government officials and representatives of the U. S. agricultural attaché's office in Rome, and of the Soybean Council.

Soybean Council representatives at the conference included Elton L. Johnson, head of the department of poultry husbandry, University of Minnesota; and Jake L. Krider, vice president, Central Soya Co., Fort Wayne, Ind.

## Strayer to Europe On Council Business

GEO. M. STRAYER, executive director of the Soybean Council of America, Inc., left Hudson, Iowa, June 20 to spend 5 weeks in Europe.

After a meeting with Foreign Agricultural Service officials in Washington, he flew to Rome, where he visited Soybean Council offices, working on soybean and soybean product promotional work.

From there, he proceeded to Israel to work with Soybean Council employees in that country, then to Spain to participate in a "Week of Nutrition Studies" sponsored by the Council at Santander July 4-10. About 1,000 prominent animal nutrition workers from the Mediterranean area were expected to attend.

Visits to Germany, the Netherlands, and Belgium will follow. Strayer will deliver a speech at the annual Congress of the International Association of Seed Crushers in London, England, July 21.

Mrs. Strayer and their niece, Karen McMahon of St. Louis, accompanied Mr. Strayer on the trip.

## R. W. Fischer Is Roach Assistant

THE APPOINTMENT of R. W. Fischer as assistant to the president of the Soybean Council of America,

Inc., at Waterloo, Iowa, has been announced by President Howard L. Roach.

Mr. Fischer, a successful businessman in the sales management and sales promotion fields, is a former employee of the U. S. Department of Agriculture and a well-known western Iowa farmer.

This unique combination of experience in business, agriculture and public service gives Mr. Fischer unusual qualifications for the varied responsibilities of his new position, says Mr. Roach.

"Bob" Fischer has been assigned to the Waterloo office,



**R. W. Fischer**

## Marti to Waterloo, Urban to Rome

CARL URBAN, assistant to the president, Soybean Council of America, left Waterloo, Iowa, early in June for Rome, Italy, where he will be temporarily in charge of the Council's area office in Rome. He was accompanied by Mrs. Urban and their two children.

Mr. Urban will be acting director of the Council's overseas operations in the absence of Fred R. Marti, who will be in this country on home leave with his family until mid-August. Dr. Marti will be at the Council's Waterloo office while he is in this country.

## Council Opens New Office in Netherlands

IN KEEPING with the enlargement of its promotional work for American soybeans and soybean products, the Soybean Council of America has hired William A. Luykx to act as representative for the Netherlands and other Benelux countries.

Mr. Luykx is a former employee in the agricultural section of the U. S. Embassy in Holland. He will soon open an office in Rotterdam, Holland, and work in close co-operation with the Soybean Council's Rome office and the FAS area representatives.

## Add to Israel Staff

THE HIRING of two new staff members to assist in Israel's increased soybean activities has been announced by Joseph Mazur, Soybean Council general director for Israel. The new appointees are Rahmiel Joffe and Mrs. Peninah Weintraub.

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# Role of Protein in Feeding

IT IS NEXT to impossible to overestimate the importance of high protein feeds, including soybean oil meal, in the efficient production of eggs and meat.



J. L. Krider  
June 30-July 1.

Dr. Krider attended the seminar as a livestock nutrition specialist representing the Soybean Council of America, Inc., one of the sponsors of the seminar.

Said Dr. Krider: "In the early 1930's soybean oil meal made up less than 10% of the supplemental protein feeds (in the United States) while the 1937-41 average was 17%, and the 1958-59 percentage was 59%. For the feeding year 1958-59, U. S. soybean oil meal production was 9.5 million tons compared with 16.2 million tons of all high-protein feeds.

"Furthermore, the protein quality in properly processed U. S. soybean oil meal is superior to other vegetable oil meals, and is comparable to most fish meals. Most U. S. processors use excellent equipment for cooking and toasting the extracted soybean flakes under controlled conditions with time, temperature and moisture closely regulated to produce soybean oil meal of high nutritional value.

"The levels of soybean oil meal used in poultry and livestock rations, total ration basis, range from 19% to 25%. Sometimes more than 25% is used in turkey and broiler rations.

"During recent years, a low-fiber, high-energy hexane extracted soybean oil meal has been produced which makes practical the formulation of economical high-energy broiler, turkey and egg production feeds. This soybean oil meal contains 50% minimum crude protein and not more than 3% fiber. Proper use of this product permits the use of larger quantities of high-energy feeds, such as ground corn or milo, because of the use of less of the high-protein ingredient to obtain the desired level of protein in the ration.

"Inedible animal and vegetable fats are also added to rations for increasing the productive energy level when these are economically priced in relation to other energy feedstuffs.

"One broiler producer with proper equipment can now produce 40,000 meat-type broilers or more at a time, five crops a year, resulting in the production of 200,000 or more birds.

"More and more of the manufactured feed is moving in bulk to poultry farms. The percentage of bulk feed shipped in the United States was 37% in 1959. In some major feed manufacturing operations, as much as 75% to 80% of all the feed moving out of the feed plant is bulk. This is especially true in heavy poultry producing regions."

Dr. Krider also took part in an animal nutrition seminar at Saragossa, Spain in June, and is taking part in the seminar at Santander, Spain July 4-10, the latter with J. Wesley Nelson, Cargill, Inc., Minneapolis and Elton L. Johnston, University of Minnesota.

## Increase in Exports From Great Lakes

SOME 14% of the nation's grain exports moved from ports on the Great Lakes in 1959 compared with 4% in 1958, according to Ross Milner, extension grain specialist, in Ohio Farmer.

Areas located near the Great Lakes in Ohio, Michigan, Indiana, Illinois, Wisconsin and Minnesota have all increased grain exports. Previously Ohio's grain exports were limited mostly to the domestic market.

Costs of delivering through the Seaway are lower than previous costs by rail to the East Coast. Also, during the year rail rates on export grain to the East Coast were reduced.

A major portion of the soybeans was sold in Canada. A large volume, however, was unloaded in Canada from the lake ships and transferred to ocean-going ships for shipment abroad. It is estimated that unloading and reloading costs in Canada amount to about 5¢ per bushel.

Loading facilities are being built at Toledo that will nicely accommodate ocean-type ships, according to Dr. Milner. Soybean exports from the Port of Toledo totaled 4,577,000

bushels in 1959 compared with 3,476,000 bushels in 1958.

In the opinion of Dr. Milner, demand for grain at Toledo may increase and prices to farmers located within the area may rise a few cents a bushel. A reduction of rail rates now under consideration would tend to increase the volume that moves to the east for domestic purposes and to decrease the volume that would move from Toledo for export.

## Says Soy Oil Imports Necessary to Spain

IMPORTATIONS of soybean oil into Spain are indispensable to the expansion of the Spanish economy, according to Jose Gonzalez, national head of the Spanish Olive Oil Syndicate.

Noting that there is a strong demand for Spanish olive oil abroad, Mr. Gonzalez stated that he considers exportation of olive oil to be necessary for maintaining equilibrium in the Spanish balance of payments.

"Do not forget that refined soybean oil costs \$220 a ton and that olive oil is quoted at present at \$530 a ton in the international market. It follows from this that for every kilogram of olive oil that is exported we can import almost 2½ kilograms of soybean oil, thus placing us in a position to be able to balance our needs, and also come out with a favorable balance in foreign currency that is very necessary to us for the expansion of our country's economy."

## Purdue Economists to Study Japan Market

TWO PURDUE University agricultural economists will study the market for American agricultural products in Japan, second largest buyer of U. S. farm products.

They are Dr. Lowell S. Hardin, head of Purdue's agricultural economics department, and Leon F. Hesser, graduate assistant in agricultural economics.

One phase of the research project, to be carried out in cooperation with the U. S. Department of Agriculture's Foreign Agricultural Service, deals with the effectiveness of the market development project undertaken in Japan since 1955. Another phase deals with the market potential for U. S. agricultural products in Japan.

Dr. Hardin said the Purdue-FAS study would have headquarters in Tokyo. The undertaking will require at least 3 months.

## JAPANESE-AMERICAN SOYBEAN INSTITUTE

### Discuss Problems of Soybean Usage



JAPANESE soy food manufacturers are addressed by Charles Elkinton, U. S. agricultural attache.

By SHIZUKA HAYASHI

Managing Director, Japanese American Soybean Institute, Nikkatsu International Bldg., No.1-Chome Yurakucho Chiyoda-Ku, Tokyo, Japan

TOTAL consumption of soybeans by manufacturers in Japan has increased steadily since 1950. During the fiscal year 1959 the total quantity of soybeans used by all manufacturers—oil processors and soybean food processors—amounted to 1.2 million metric tons or 46.7 million bushels, an increase of more than 12% over the previous year.

Japan's total imports during the 1959 fiscal year were 1,073,477 tons or 39,397,000 bushels, of which 1,010,444 tons or 37,083,000 bushels came from the United States. This compares with total imports of 905,600 tons or 33,236,000 bushels, and from the United States 866,443 tons or 31,798,000 bushels the previous year.

The total quantity of soybeans, both imported and domestic, used by the Japanese food manufacturers is as follows, in metric tons:

	1959/1960	1960/1961
Miso makers	186,400	188,180
Shoyu makers	218,400	220,537
Tofu & frozen tofu makers	340,00	370,000

Oil processors crushed 768,870 tons or 28,218,000 bushels in 1958-59.

Both miso and shoyu manufacturers use whole soybeans as well as defatted soybean meal. The quantity of defatted soybean meal is computed as soybeans in the above figures.

With these figures as background knowledge, various promotional activities carried out by the Japanese American Soybean Institute should be analyzed. The complaints and

opinions of the various food manufacturers who are the biggest consumers of soybeans need to be carefully listened to and taken into consideration in order to achieve the objectives of our market development project.

Included in the Institute's programs are meetings with the various soybean food manufacturers. In these meetings there is emphasis on how to increase consumption of the various soybean foods including soy sauce, miso, tofu or bean curd, soybean oil and other soy foods.

The 19th of the series of meetings with manufacturers was held recently in the city of Otsu, Shiga prefecture, with about 80 leading manufacturers of miso, shoyu and tofu from the Kansai area.

Charles Elkinton, U. S. agricultural attache, was present to answer questions. Questions were asked on various matters such as changing to free import of soybeans and purchase on a variety basis. But they were mainly concentrated on the foreign material content of U. S. soybeans—the same old problem.

The manufacturers claimed the soybeans they receive from the United States are of inferior quality. They emphasized their desire for soybeans of better quality with no foreign material or broken beans, and of course with no morning glory seeds. Some claimed that they cannot get offers on No. 1 grade soybeans even if they wish to.

The writer, as in all meetings, explained that Japanese buyers, if they so specify in the contract, can buy beans of any quality they desire, but they must be prepared to pay a higher price for better quality. I explained that food processors when

placing orders should indicate exactly what grade soybeans they want and should request importers to obtain offers accordingly from U. S. sellers.

At this meeting samples of different varieties including Jackson, Lee, Adams, Hood, Bansei, Kanrich, and Harosoy were placed before the manufacturers for their opinions. The majority selected Bansei, Kanrich and Lee as the most satisfactory.

Mr. Komiya, managing director of the Japan Shoyu Association, made a very impressive speech at the meeting, urging that the Japanese government should stop discriminating against U. S. soybeans and should place them on the free import list. He explained that it is wrong for the Japanese government to protect domestic soybean growers because their average income from soybeans is only 0.7% of the total income from agricultural products.

Soybeans are now the second most important agricultural commodity Japan imports from the United States. Cotton is first, wheat third. The complaints and views of important customers need to be studied seriously.

Import restrictions on U. S. soybeans may be lifted at any moment. Trade between Japan and China may be restored some day. It is hoped that the work so far carried out under the market development program will be a contribution to a steady and increasing business under the coming free world competition.

## AMERICAN SOYBEAN ASSOCIATION

### Renew Japan Market Project for 2 Years

THE MARKET development project for soybeans and soybean products in Japan will be continued for another 2 years, until June 30, 1962, according to an agreement just signed by the American Soybean Association and Foreign Agricultural Service, U. S. Department of Agriculture.

The project has been in operation since 1956 when ASA and FAS signed the first agreement. The project will be financed by P. L. 480 funds and funds contributed by the soybean industries in this country and in Japan, as in the past. FAS has made \$75,000 available from 1960 fiscal year funds for the project in

Japan. Additional funds have been applied for for the 1961 fiscal year.

The Japanese American Soybean Institute in Tokyo is the operating agency for the project.

The Japanese project was the first market development project for U. S. soybeans and soybean products ever set up in any foreign country, and it has served as the forerunner for a number of market development projects that have followed in other parts of the world.

In a few short years this project has helped to create great interest on the part of Japanese industry and consumers in the use of U. S. soybeans in the Japanese economy and has set in motion the needed actions to overcome the obstacles to such usage.

### Georgetown Terminal For Export of Soybeans

THE SOUTH CAROLINA State Ports Authority's new terminal at Georgetown has been designated as a trial facility for the exportation of soybeans, according to newspaper sources.

James J. Scott, Jr., authority engineer has been instructed to survey the facility and adapt it to the handling of soybeans, Cotesworth P. Means, authority chairman, said.

If the experiment is successful and soybean exports can be developed, the authority will spend approximately \$200,000 from its ports expansion funds to build a full-fledged, special handling facility at Georgetown, the authority said.

### THE COVER PICTURE

#### 45 Carloads of Export Oil by Iowa Processor

COVER PICTURE shows part of a trainload (45 tankcars) of soybean oil shipped recently by the North Iowa Cooperative Processing Association of Mason City, Iowa.

The load of oil was sold to Anderson Clayton & Co., foods division, Sherman, Tex. The oil will be refined and sold in the export market.

Weighing 2.7 million pounds, the shipment was valued at \$215,000. There was enough soybean oil in the one shipment to furnish the fat requirement of 60,000 people for a year. About 250,000 bushels of north-Iowa-grown soybeans were required to make that much soybean oil.

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**FAT & OIL TESTER**

For rapid electronic measurement of fat and oil content of soybeans, flax, peanuts, cottonseed, expeller meal, meat and meat products and other fat and oil bearing products.

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PRESSING - DRYING  
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**ROTARY COOLERS**  
Water and Air

## FEEDING

### Work on Processing of Whole Beans in Delaware

THE DELMARVA area produces enough soybeans each year to provide 400 pounds for each ton of poultry feed used on the peninsula, notes T. D. Runnels, poultry nutritionist at the University of Delaware.

"Theoretically, feed prices would sometimes be lower if these beans could be used to replace a portion of the soybean oil meal and fat used in commercial poultry feeds."

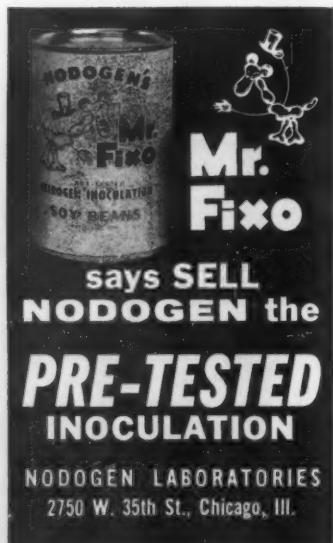
Personnel with the University of Delaware Agricultural Experiment Station have conducted a series of feeding trials with broilers, using soybeans processed in a variety of ways.

"It would appear that we are approaching a method of processing soybeans that will produce satisfactory feeding results. However, efficient equipment is yet to be developed and economic conditions concerning the price of soybeans vs. soybean oil meal and feed grade fat must be favorable before locally grown soybeans will be processed commercially and used in practical poultry feeds."

*The Use of Locally Grown Soybeans in Poultry Feeds.* By T. D. Runnels. 1960 Delaware Poultry Handbook. Delaware Poultry Improvement Association, Newark, Del.

### Good Results from Processing Tests

THE FOURTH in a series of experiments to determine ways of process-



ing locally grown soybeans into efficient economical poultry feed supplements has been completed at the University of Delaware substation near Georgetown.

For the first time in the series the average body weights and feed conversions of broilers receiving dehulled, unextracted processed soybeans in their diets equalled those of the controls.

The procedure followed to process the soybeans consisted of obtaining dehulled flaked beans from a soybean processor. Ten percent moisture was added and they were cooked for 20 minutes at 4 pounds steam pressure (PSI) in an agitating meat scrap cooker. After cooking they were dried on a hay drier to 12% moisture.

*Processed Soybeans as an Ingredient in Broiler Diets.* By T. D. Runnels, F. A. D'Armi, M. S. Cover, L. M. Greene, and J. F. Gordy. Soybean Processing Report No. 4. University of Delaware Agricultural Experiment Station, Newark, Del.

### Unsaturated Fats Have Higher Nutritive Value

THE PRINCIPAL new development in the energy field of poultry nutrition in 1959 was the establishment of the fact that unsaturated fats have a higher nutritive value for chickens than do saturated ones.

It is apparent that the digestibility coefficient of unsaturated fats range from 11% to 13% higher than that of animal fat.

It is estimated that a purchasing agent may consider fats of vegetable origin to be worth approximately 15% more than those of animal origin.

*Poultry Nutrition 1960.* By J. R. Couch. Feed Age, April 1960, pages 38-44.

### Ration with Soybean Meal as Sole Protein

A UNIVERSITY of Illinois animal scientist, D. E. Becker, has formulated two complete fortified rations for hogs with soybean oil meal as the only supplementary source of protein.

Becker recommends soybean meal as the single supplementary protein source in fortified corn rations. Extensive tests show that soybean meal provides all the necessary amino acids. Essential vitamins can be

added to the ration in a vitamin supplement. Soybean meal is the cheapest source of supplementary protein in the Midwest.

Illinois Ration 16 for pigs weighing between 30 and 100 pounds, and Illinois Ration 12 for pigs weighing between 100 and 200 pounds contain ground yellow corn, soybean meal, vitamins and antibiotics. Farmers can easily mix them or have a local elevator mix them.

*Balancing Hog Rations.* Circular No. 811. 10¢ to out-of-state residents. Office of Information, 110 Mumford Hall, University of Illinois, Urbana, Ill.

### Soybean Meal Fed Cattle Gain Faster

FATTENING trials were conducted in Oklahoma with yearling steers to study the value of a high-urea supplement vs. soybean meal in rations based on milo and sorghum silage.

Results show little difference in rate of gain among treatments, although there was a tendency for the soybean meal-fed cattle to gain faster than those receiving urea. Although the urea supplement cost less per ton than soybean meal, net returns per steer favored the steers fed soybean meal by \$5.98 per head.

Trace minerals failed to increase performance when added to either supplement, with a tendency for reduction in gain when added to the urea supplement.

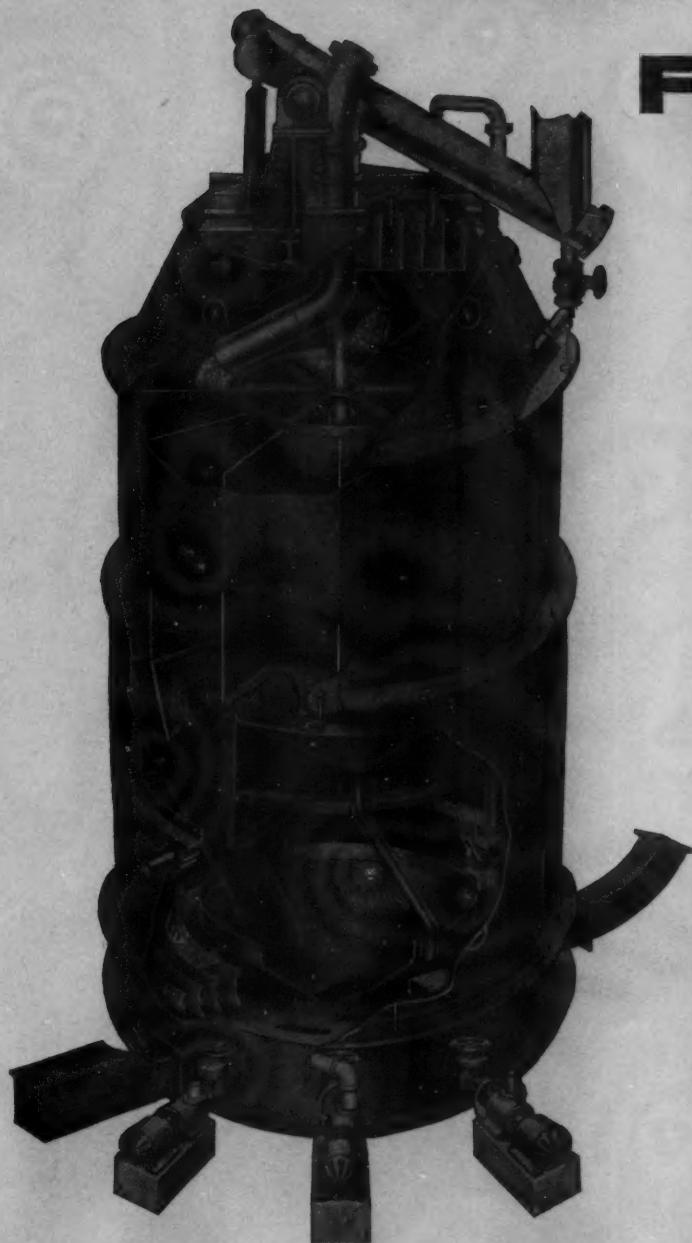
*Soybean Meal vs. Urea Supplement, With and Without Trace Minerals, for Fattening Yearling Steers.* By L. S. Pope, Kenneth Urban, L. E. Walters, and George Waller. Feeders Day Report 1959, Oklahoma Agricultural Experiment Station, Stillwater, Okla.

### Compare Safflower Meal with Soybean

SAFFLOWER MEAL when fed to steer calves to provide approximately the same level of supplemental protein as soybean meal produced almost identical gains as soybean meal in Nebraska experiments. But more safflower meal was required per unit of gain.

*Safflower Meal as a Protein Supplement for Cattle.* By Marvel L. Baker, Guy N. Baker and John K. Matsushima. S. B. 447. Nebraska Agricultural Experiment Station, Lincoln, Nebr.

*The Inside story of a FRENCH revolution...*



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# FRENCH

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In this revolutionary method of extraction, both the flakes and the major machine parts remain stationary throughout the entire extraction cycle. This design keeps the number of moving parts to a minimum, and eliminates the need for heavy thrust equipment.

The French Stationary Basket Extractor features a positive internal gear drive, drastically reduced bearing loads and anti-friction bearings protected from exposure to solvent.

This unit is designed to process all types of oil seeds. Write for the money-saving details contained in Bulletin No. 08-30A. Our engineering staff will gladly make suggestions on solving your extraction problems.



Now in operation at Southern Soya, Inc., Estill, South Carolina, a French Stationary Basket Extractor permits complete filtration of miscella as part of the extraction process. Filling action is continuous, and flake-beds are pre-soaked during filling to produce highest, most profitable extraction yield.

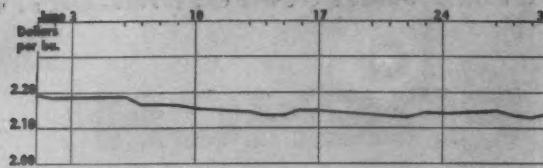
Southern Soya produces extracted meal of less than 0.5% oil at over the rated capacity of 150 tons.

### THE FRENCH OIL MILL MACHINERY CO.

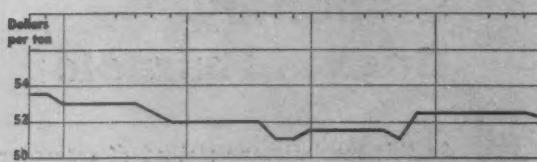
PIQUA, OHIO • U. S. A.

Designers • Engineers • Manufacturers  
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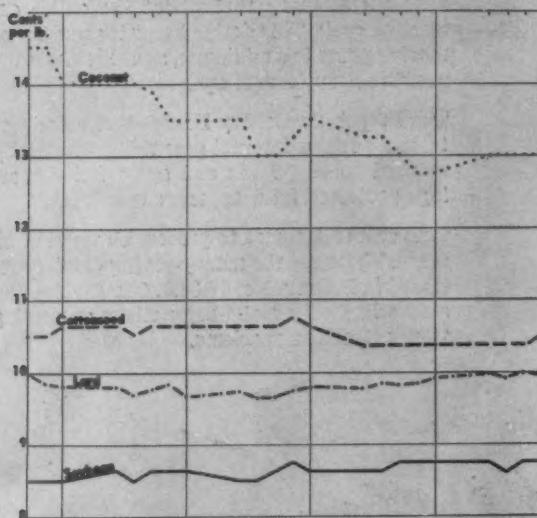
DAILY MARKET PRICES  
No. 1 Cash Soybeans, Chicago



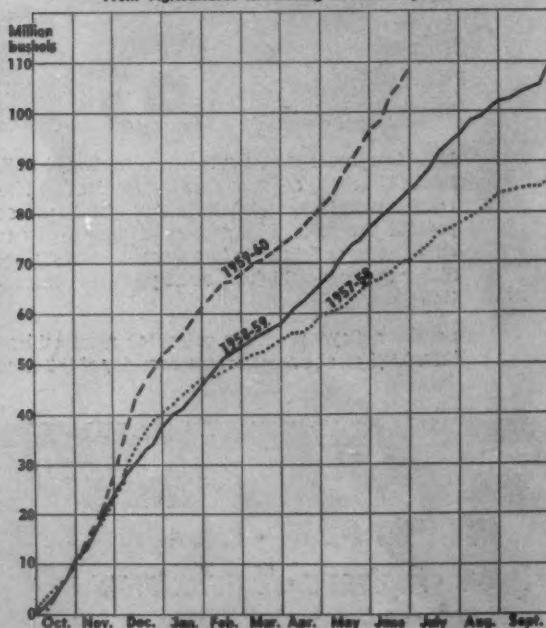
Bulk Soybean Meal, Decatur



Crude Vegetable Oils and Lard

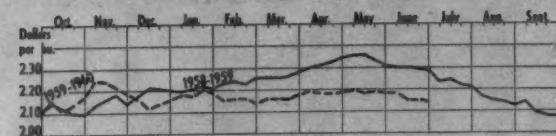


SOYBEAN INSPECTIONS FOR EXPORT, CUMULATIVE YEAR  
BEGINNING OCT. 1, 1957, 1958, 1959  
From Agricultural Marketing Service Reports

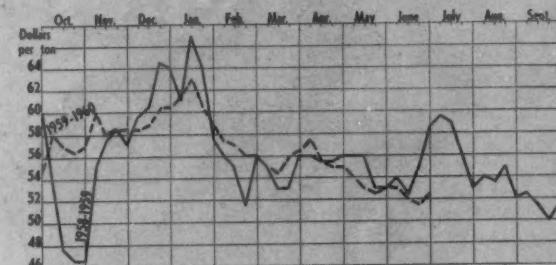


TRENDS AT A GLANCE (Weekly Close)

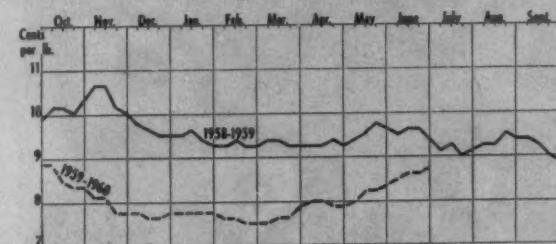
No. 1 Cash Soybeans, Chicago



Bulk Soybean Meal, Decatur



Crude Soybean Oil, Tankcars



CASH PRICES JUNE 1960\*

	No. 1 yellow soybeans Chicago	Bulk soybean meal Decatur	Soybean oil Decatur	Mississippi Valley	Cottonseed oil Pacific Coast	Coconut oil	Lard Chicago
June							
1	\$2.18½	\$53.50	\$0.08½	\$10½	\$14½	\$0.095	
2	2.18½	53.50	.08½	.10½	.14½	.095	
3	2.18½	53.00	.08½	.10½	.14	.0982	
4 Saturday							
6	2.18½	53.00	.08½	.10½	.14	.0980	
7	2.16½	53.00	.08½	.10½	.14	.0970	
8	2.16½	52.50	.08½	.10½	.13½	.0977	
9	2.16½	52.00	.08½	.10½	.13½	.0982	
10	2.15½	52.00	.08½	.10½	.13	.0972	
11 Saturday							
13	2.14½	52.00	.08½	.10½	.13½	.0975	
14	2.13½	52.00	.08½	.10½	.13	.0967	
15	2.13½	51.50	.08½	.10½	.13	.0973	
16	2.15	51.50	.08½	.10½	.13½	.0975	
17	2.15	51.50	.08½	.10½	.13½	.0980	
18 Saturday							
20	2.13½	51.50	.08½	.10½	.13½	.0977	
21	2.13½	51.50	.08½	.10½	.13½	.0985	
22	2.13	51.00	.08½	.10½	.13	.0982	
24	2.14½	52.50	.08½	.10½	.12½	.0985	
24	2.14	52.50	.08½	.10½	.12½	.0990	
25 Saturday							
27	2.15	52.50	.08½	.10½	.13	.0995	
28	2.13½	52.50	.08½	.10½	.13	.0992	
29	2.13½	52.50	.08½	.10½	.13	.0992	
30	2.14½	52.25	.08½	.10½	.13	.0997	

\* From Wall Street Journal, Chicago.

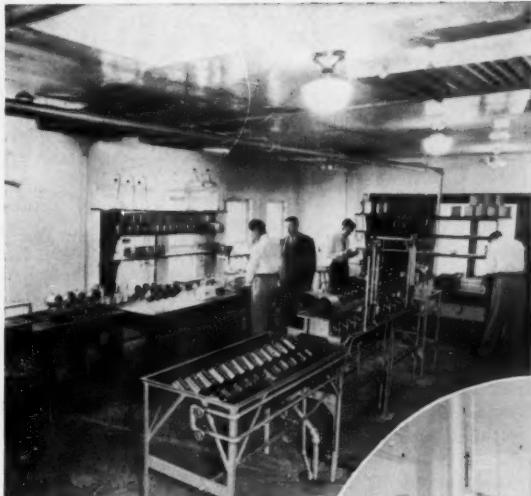
1958 AND 1959 SOYBEAN CROPS

1959 1958

Total soybeans under price support as of May 31	52,379,385 bu.	140,160,749 bu.
Total soybeans withdrawn from support as of May 31	22,883,453 bu.	29,926,185 bu.
Loans and purchase agreements outstanding May 31	27,582,000 bu.	109,663,000 bu.
Soybeans crushed Oct. 1-May 31	270,513,000 bu.	279,069,000 bu.
Exported Oct. 1-May 31	97,241,000 bu.	79,406,000 bu.
Balance on hand June 1 for processing, export or carryover	201,531,000 bu.	214,321,000 bu.
Total soybeans inspected for overseas export plus lake shipment to Canada Oct. 1-June 24	107,952,013 bu.	86,394,819 bu.

Serving The Soybean Industry Since 1935

# 7 - Chemical Laboratories to serve you.



Our Chicago laboratory is equipped with the most modern equipment for refining soybean oils; soybean products and feeds.

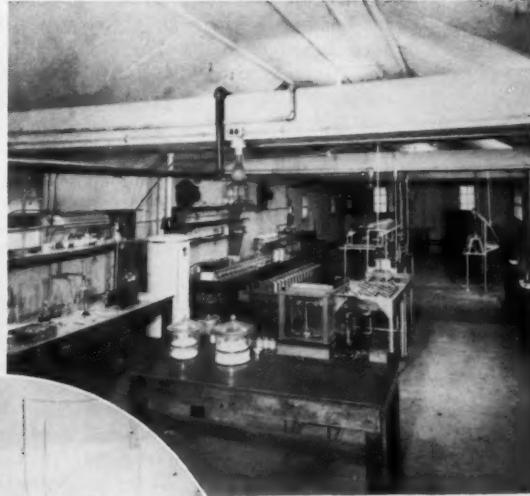
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## GRITS and FLAKES . . . from the World of Soy

### Matthews to Represent French in North Central

Lyman E. Matthews is now affiliated with the **French Oil Mill Machinery Co.**, Piqua, Ohio, as the company's representative in the North Central States. He will be responsible for the sales, service and operation of French equipment in the vegetable oil and related fields.



Lyman E. Matthews

Mr. Matthews is a registered professional engineer and has had more than 20 years of experience in the vegetable oil, chemical process, and associated industries.

He will be located at 17612 Riverside Drive, Lakewood 7, Ohio.

### Canterbury Heads N. O. Enterprise for Cargill

Lee D. Canterbury, general manager of **Cargill, Inc.**, at Memphis, Tenn., became vice president of the firm's expanded New Orleans enterprises about July 1. Canterbury came to Memphis 14 years ago and has seen Memphis business increase because of booming Midsouth soybean production.

In New Orleans Canterbury will head four different functions: Rogers Terminal Co.; Cargill Carriers, Inc.; Cargill import and export division; and Cargill grain division.

"This ties in with Cargill's increasing operations abroad," says Canterbury. "We'll handle the soy-

bean meal and oil that we process in Memphis and export it from New Orleans."

Two men will divide Canterbury's duties in Memphis. Cary Humphries will head the grain division, and James R. Spicola, the vegetable oil division.

### Isbrandtsen Reelected Head of N. Y. Exchange

Jakob Isbrandtsen has been reelected president of the **New York Produce Exchange** for the 1960-61 term. Mr. Isbrandtsen is president of Isbrandtsen Co., Inc. He has served as president of the Produce Exchange for the past year.

Thomas R. Connolly, manager of the New York office of Cargill Inc., was elected vice president.

Sidney Fashena, a partner in I. Usiskin and Co., New York City, was reelected treasurer.

Elected members of the board of managers for a 2-year term were Harry B. Anderson, vice president and a director of Merrill Lynch, Pierce, Fenner & Smith, Inc.; Dominick R. Comenz, president of D. R. Comenz & Co.; Arthur V. Crofton, E. F. Hutton & Co.; Carl E. Preston; Benjamin Sirota, Sirota & Co.; and George W. Stretch, Furness, Withy and Co., Ltd.

### DK Manufacturing Co. Buys Dunbar-Kapple Co.

DK Manufacturing Co., Chicago, has purchased **Dunbar-Kapple, Inc.**, Batavia, Ill., from General American Industries, Inc., New York. The former General American subsidiary

will be known as Dunbar-Kapple division of DK Manufacturing Co.

Dunbar-Kapple manufactures pneumatic grain conveyors, among other products.

DK Manufacturing products include metal hose, high-pressure and high-vacuum vessels, and stainless steel ducting for the aircraft and missile industry.

Herbert N. Woodward is chairman of the board of DK Manufacturing, and Paul J. Firing is president. Both officials will retain their present positions.

The Batavia plant of Dunbar-Kapple, a 120,000 square foot facility, will be retained, with very few changes in manufacturing.

### General Mills to Use MPF for Earthquake Relief

A General Mills' check for nearly \$1,500, issued recently to the Meals for Millions Foundation, Inc., Los Angeles, will be used in part to provide Multi-Purpose Food (MPF) for survivors of the Agadir (Morocco) earthquake. The check, representing a monetary credit to the Foundation for MPF produced and sold by General Mills, is the first such check to be issued. As sales volume of MPF increases, these monetary credits will enable the Foundation to send more and more MPF abroad for relief feeding.

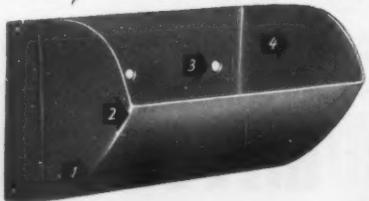
Dr. Elmer Kiehl, chairman of the agricultural economics department of the **Missouri College of Agriculture**, has been named dean of the College effective Sept. 1. Dean John Longwell will be 65 in July, the mandatory retirement age.

Construction of a 12-ton-an-hour feed mill at Mendota, Ill., by **Swift & Co.**, Chicago, is scheduled to begin soon, according to W. J. Chapin, head of Swift's general feed department.

Explosion of a 15,000-gallon gasoline storage tank and the resulting fire injured two persons, and leveled the 400-foot building of the **Planters Fertilizer & Soybean Co.** plant at Pine Bluff, Ark. The blaze started from a pumping device as gasoline was being loaded into a tanktruck. Damage was estimated at \$250,000.

**Nickel Plate Road**, Cleveland, Ohio, has issued state maps showing soybean acreage planted and harvested and bushelage by counties for Illinois, Indiana, and Ohio for 1958 and 1959. Location of soybean processing plants is also shown.

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- (3) Bolt-hole placement gives better cup balance . . . saves bolting.
- (4) Hyperbolic sideboard ends permit greater load capacity without "slipping."

C. L. "Joe" Johannes has joined **Butler Manufacturing Co.** as a farm equipment sales representative. He will make his home in Harlingen, Tex., and will service Butler dealers throughout south Texas. He formerly was associated with General Mills and was territory manager in Texas for more than 5 years.

Ellsworth E. Kimmel has been named director of the industrial market development department in the expanding market development division of **A. E. Staley Manufacturing Co.** He was formerly with the Koppers Co. in Pittsburgh for 11 years in chemicals and plastics development.

K. S. Crittenden, Inc., Charlotte, N. C., has been named the exclusive distributor of the **Borden Special Products Co.** for North Carolina, South Carolina, and southern Virginia.

The appointment of R. R. Worthington as assistant general manager, Bagpak division, **International Paper Co.**, has been announced by A. A. Scholl, general division manager. He has been a member of the Bagpak sales staff since 1936.

The three-expeller-capacity soybean processing plant of the **West Bend, Iowa, Elevator Co.**, which was destroyed by fire last January, is being rebuilt to the same capacity and will be reopened about July 1, according to R. W. Jurgens, manager.

John Cowan, grain coordinator for **Dannen Mills**, St. Joseph, Mo., for the past year, has been advanced to the post of assistant to the president, Dwight L. Dannen, who announced the appointment. Mr. Cowan, before joining Dannen's, was deputy director of Commodity Credit Corp. at Kansas City.

Mr. and Mrs. Henry Leitschuh, Sleepy Eye, Minn., are leaving for Europe Aug. 11 and will visit Iceland, Paris, Germany, Italy, Switzerland, Holland and London. They will return home Sept. 4.

Walter B. Wriston, senior vice president in charge of the overseas division of the First National City Bank of New York, has been elected to the board of directors of **General Mills, Inc.**

C. W. Fliginger will become grain division branch manager in Sioux City, Iowa, for **Cargill, Inc.**, nationwide agricultural products firm, following retirement this summer of the present manager, C. D. Siegfried. A company announcement also told of transfer from Cargill's Peoria,

Ill., office of Walter K. Kueffer to a merchandising position in Sioux City.

Elster B. Copeland has been given management responsibility of the new Guntersville, Ala., soybean plant of **Allied Mills, Inc.**, which began processing operations May 1. He recently served as president of the Connecting Terminal Elevator Corp., Buffalo, N. Y.

Zenon Stephen Lozin has been appointed sales representative of the Detroit plant of the **R. J. Brown Co.**, which is under the direction of Charles C. Berry. He has had more

than 13 years experience in the solvent and chemical industry.

Ancel Packer, Louisiana, Mo., has been named manager of the Illinois district of the warehousing division, **Dannen Mills**, St. Joseph, Mo. For the past 4 years he has been assistant manager of the MFA sub-terminal elevator at Louisiana.

**Ralston Purina Co.** has bought a 4-million-bushel grain elevator at Kansas City, Mo., from the Wabash Railroad. The elevator has been under lease to the Checkerboard Grain Co., a Purina subsidiary, and will continue in its operation.

## LAUHOFF SOYA CO.

### How Soybeans Have Grown!

Take just a moment's time to consider the remarkable growth of the soybean industry through the last quarter-century, and its practical meaning:

**TO THE UNITED STATES OF AMERICA**—It shifted our country from dependence on imports to the largest exporter of fats and oils in all the world. Give major credit to the soybean!

**TO THE AMERICAN FARMER**—It means an annual cash income of more than one billion dollars, and a profitable market for the output of more than twenty million acres of cropland—without government controls; and the ability to divert acreage from chronic surplus crops.

**TO THE CONSUMER**—It has meant freedom from reliance on uncertain import supplies to meet oil and fat needs, and abundant supplies at reasonable prices of a most important healthful, high-energy food—soybean oil.

**TO LABOR**—It has brought millions of man-hours of work, at good wages.

We are proud to be a hard-working factor in the growth of this great industry.

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By GEORGE PETER

## Exports Boosted by Spanish Purchases

FACTORS SEEN currently from Washington as affecting the coming soybean picture are many. Each force is playing or will play its part in the whole outlook for the new crop year ahead.

Some of the special highlights certain to play their part, big or small, are:

### Price Support

Early USDA speculation, for example, is that price support may play a more important part in the domestic market situation for the new crop than it did the past season when prices held up generally at an average of about \$2, or 15¢ above the support price, national farm average.

A larger crop this year, which many experts think is on the way, could bring prices down closer to the support level. The result would mean more beans under loan.

This speculation is entirely dependent, of course, on how first crop estimates look Aug. 10. You'll know the total acreage by then, too, which many have also guessed should be a new record.

Depending on the size of the crop—and no one in USDA feels that he can really say anything about volume or price yet—if it is another record crop year, USDA expects

generally a repeat of the 1958 record price pattern.

For that record year, market price was high above the support level for one and a fraction months only. Similar prospects for the coming season, given the same conditions, are based on recent trends showing smaller seasonal price rises for beans in the last 3 years. An examination of the statistics for that period shows that growers have been more likely to store when prices are closer to the support level. This tends to flatten out the price curve.

### Exports

A spot check of both government and industry indexes here turns up nothing to dim the already predicted high export prospects for both beans and oil.

There have been unexpected current developments, however, that may determine what part of the year a bulge in exports may occur, whether in fact there will be a bulge, or whether exports will be stable over the remaining months.

One factor—Spain's new oil agreement under P. L. 480—could have an effect on current demand, although no price effect is predicted as yet.

USDA will issue an authorization for buying under the new program

only as much as Spain can buy and ship by Aug. 31. The total agreement of 100,000 metric tons, the amount currently estimated to be procurable with a PA (procurement authorization) of \$27.7 million, is what USDA estimates Spain will need through this Dec. 31.

USDA's first authorization under the agreement is for \$11,080,000 worth of cottonseed oil or soybean oil (meaning mostly bean oil) estimated to buy about 40,000 metric tons. Contracts must be made between July 4 and July 30 and shipments must be made from U. S. ports between July 4 and Aug. 31.

The remainder of the amount of exports agreed on—100,000 tons minus what can be bought and shipped through August—will have to get a USDA approval through a second PA. The idea is to avoid too big an authorization that can be used over a period covering both old and new crop oil.

Spain is understood to want only soybean oil under the agreement, although the announcement reads "cottonseed or soybean oil." Spain has stuck mostly to bean oil the last 3 years when looking to outside sources for edible oils.

The agreement for 100,000 tons came as a surprise. Since Spain's bid for 40,000 tons in the cash market several weeks ago, the most she was expected to take under P. L. 480 for the remainder of the year was 60,000 tons. Only 15,000 tons were bought in the open market bid. The new agreement is considered to have killed off interest in the open market offer, although this is by no means final.

### New Tariffs

Vegetable oils and fats of all kinds, including soybean oil, are high up on the list of commodities the United States will want concessions on in the coming tariff negotiations as exchange for concessions other countries will want on commodities they want to export to us.

The negotiations take place in two stages. This fall, tariffs will be set by the participating nations. In January, bargaining will begin on concessions the countries hope to get from each other on the tariffs set up in the earlier meetings.



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and  
**National Soybean Processors Assn., August 22-23**

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Whether you stay a day or a week you'll enjoy HOTEL PEABODY—the perfect comfort of the air conditioned rooms, the delicious food and the unexcelled service will make your visit memorable.

Plantation Roof—Dance under the stars—Make Reservations Now  
"The South's Finest—One of America's Best"

34

SOYBEAN DIGEST

Fats and oils do not figure importantly in the list of commodities the United States will offer concessions on to those countries heavily dependent on their own agriculture, although linseed oil and soybeans are mentioned.

Commodity groups recently meeting with USDA officials on problems that might come up in the new negotiations felt that tariffs may be less of a barrier to U. S. exports than other methods of regulating imports.

USDA fears the Common Market most in the coming negotiations. The six-nation combine plans to approach negotiations as an economic unit with lower tariffs for each other, but higher common tariffs for non-member nations. The countries are France, Italy, West Germany, the Netherlands, Belgium, and Luxembourg.

Vegetable oils, feed grains, tobacco, and cotton are commodities the USDA fears would be hurt most if the Common Market carries out its plans to the limit. Agriculture Secretary Benson on a goodwill trade tour starting in August will stop off at Common Market headquarters in Belgium to see if more amicable trade relations are possible.

Other official views are that the Common Market group may present a problem but may turn out to be more flexible than earlier thought, once bargaining begins. For example, the Common Market will approach the earlier meetings with a common tariff, but when negotiations for concessions start the member nations may negotiate on concessions on an individual basis. This is thought to open the door to more favorable tariffs.

### Soviet-Finnish Trade

ACCORDING to the Finnish-Soviet 1960 trade agreement, Finland is to import 49,600 short tons of oilcakes and meals from the USSR in 1960, the same as the 1959 quota, USDA's Foreign Agricultural Service reports. Of this amount, 20,000 tons of soybean meal is scheduled.

No U. S. soybeans have been imported into Finland since 1957.

### Terminal at Madrid, Mo.

ROBERT KING, New Madrid, Mo., has applied for a permit to build terminal facilities on the Missouri bank of the Mississippi River about 160 miles north of Memphis.

There will be an elevator, storage bins, mooring facilities and a conveyor system.

## Woodworth Was Leading

### III. Soybean Breeder

CLYDE M. WOODWORTH, 72, University of Illinois professor emeritus of plant genetics, died May 23 at Urbana, Ill.

He was a member of the University of Illinois faculty from 1920 until his retirement in 1956. Recognized worldwide

as a soybean plant breeder, he was credited with the development of soybeans as a major Illinois crop, and with hybrid corn development. He originated three soybean varieties at one time widely grown, the Chief, Illini and Viking. He also produced the Lincoln variety in cooperation with the U. S. Department of Agriculture.

Dr. Woodworth was elected an honorary life member of the American Soybean Association in 1948.



Clyde M. Woodworth

He received his bachelor's degree at the Oklahoma A. and M. College, and his master's and doctor's degrees from the University of Wisconsin.

Before coming to the University of Illinois he was assistant in agronomy, South Dakota State College; assistant and instructor in genetics, University of Wisconsin; and assistant pathologist, U. S. Department of Agriculture.

He was a member of a large number of scientific and professional societies.

Dr. Woodworth is survived by his widow, a daughter and two grandchildren.

### Pigweed Study at III.

ILLINOIS agronomists are beginning the second year of a study to find out the effects of pigweed populations on the yields of corn and soybeans. Previous studies with giant foxtail showed the losses from grass weeds. This study of broadleaf weeds will provide further data on the damage weeds can do to crop yields.

## - MARKET STREET -

We invite the readers of THE SOYBEAN DIGEST to use MARKET STREET for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here. Rate 10¢ per word per issue. Minimum insertion \$2.00.

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FOR SALE—ANDERSON Expellers and French screw-presses, cookers, driers, 5-high, 48-inch crushing rolls, 36-inch attrition mills, sewing machines, hammermills, cracking rolls, filter presses. Ray L. Jones, 1923 Hayselton Drive, Jefferson City, Mo.

IDEAL BEAN STORAGE AT 18¢ A bushel in 200,000-bushel capacities. Complete steel tanks at lowest cost. Write Westboro Elevator Construction, Westboro, Mo.

FOR SALE—TWO 150-H.P.-HRT Erie City boilers. Complete with Detroit stokers, over-fire stokers, Union feedwater pumps, and all necessary accessories. Buyer to dismantle and move. Inspection welcomed. Phone 2325, H. S. Chittick, Swift & Co. soybean mill, Frankfort, Ind.

PRATER 75 H.P. DUAL SCREEN pulverizer. Also 100-lb. Richardson meal scale and Union Special 12-inch belt sewing machine. Ray L. Jones, 1923 Hayselton Drive Jefferson City, Mo.

FOR SALE—HOT SPOT DETECTOR system; installation for 40 by 140 by 14 flat storage. Unused. \$780. Shelby Grain Co., Paxton, Ill.

ALL KINDS OF GOOD USED grain processing machinery. E. H. Beer & Co., Baltimore 24, Md. Phone Dickens 2-6606.

STEEL GRAIN BINS—WE HAVE some 9,000 and 12,000 bu. King Size Bins plus a few other sizes available. Write for particulars. Midwest Steel Products Co., 121B Railway Exchange Bldg., Kansas City 6, Mo.

## IN THE MARKETS

**EXPORTS.** Preliminary data on U. S. exports of soybeans, soybean and cottonseed oils, soybean and cottonseed cakes and meals for the month of April 1960, with comparable data for April 1959 and cumulative totals for October-April in the marketing years 1958-59 and 1959-60, from Foreign Agricultural Service, U. S. Department of Agriculture.

	April		October-April			
	Unit	1959	1960	1958-59	1959-60	
Soybeans	bushel	9,410,033	8,471,332	70,186,684	84,241,394	
Soybean oil:						
Crude	pound	25,077,550	80,371,429	161,674,081	239,767,790	
Refined but not further processed	pound	2,327,716	3,174,626	19,762,318	42,994,172	
Refined deodorized and hydro- genated	pound	29,997,211	16,428,959	190,572,306	82,512,900	
Cottonseed oil:						
Crude	pound	89,103,978	30,130,009	174,147,486	244,700,244	
Refined but not further processed	pound	3,323,361	15,042,018	4,433,849	122,584,606	
Refined deodorized and hydro- genated	pound	4,462,489	4,704,462	13,133,734	21,554,294	
Cottonseed cake and meal	s.t.	173	3,059	5,053	122,597	
Soybean cake and meal	s.t.	42,952	29,786	333,098	441,879	
<b>Cottonseed and soybean oils and lard: Exports under Title I, Public Law 480 programs, and total exports, October 1954-April 1960 (million lbs.)</b>						
	Oct. 1-Sept. 30			Oct. 1-Apr. 30		
	1954-	1955-	1956-	1957-	1958-	1959-
	55	56	57	58	59	60
Exports under P. L. 480						
Cottonseed	117	291	55	97	141	5
Soybean		279	495	592	747	319
Total oils	117	570	550	689	888	324
Lard		112	65	3	---	---
Total exports:						
Cottonseed	710	611	423	248	404	192
Soybean	50	557	807	803	941	377
Total oils	760	1,168	1,230	1,051	1,345	569
Lard	528	663	530	394	535	287
<b>1 Public Law 480 exports are reported according to the month in which the bill of lading was dated. 2 April exports estimated.</b>						

Based on weekly reports of inspections for export by licensed inspectors and does not include rail or truck movement to Canada or Mexico. In some cases, the ultimate destination of the soybeans exported is not shown on the inspection reports. Therefore, the quantity for each country may vary from official Census data which are based on custom declarations.

Soybeans: Inspections for export by coastal areas and country of destination May 1960 (1,000 bu.)			
<b>Great Lakes</b>			
Canada	*2,404	Denmark	159
Netherlands	339	Netherlands	1,957
Other	243	Belgium	142
Subtotal	2,986	France	93
<b>Atlantic</b>		West Germany	885
France	555	Italy	112
Italy	93	Taiwan (Formosa)	640
Taiwan (Formosa)	175	Japan	4,398
Other	158	Other	51
Subtotal	981	Subtotal	8,552
<b>Gulf</b>		Grand total	12,519
Norway	115	Total Jan.-May 1960	43,721
Total Jan.-May 1959			39,958

Based on weekly reports of inspections for export by licensed inspectors and does not include rail or truck movement to Canada or Mexico. In some cases, the ultimate destination of the soybeans exported is not shown on the inspection reports. Therefore, the quantity for each country may vary from official Census data which are based on custom declarations.

Soybeans: Inspections for export by ports and areas May 1960 (1,000 bu.)			
<b>Lake Ports</b>		<b>Gulf</b>	
Superior	1,036	Mobile	260
Chicago	1,180	New Orleans	6,612
Saginaw	100	Port Allen	1,648
Toledo	670	Houston	32
Subtotal	2,986	Subtotal	8,552
<b>Atlantic</b>		<b>Totals</b>	
Philadelphia	619		
Baltimore	315	May	12,519
Norfolk	47	Jan.-May '60	43,721
Subtotal	981	Jan.-May '59	39,958

Based on weekly reports of inspections for export by licensed inspectors and does not include rail and truck movement to Canada or Mexico.

Title I, P. L. 480 exports for May 1960 and July 1959-May 1960

	May 1960			July 1959-May 1960		
	Metric tons	Unit	Quantity	Metric tons	Unit	Quantity
Cottonseed oil	.....	.....	.....	65,290	lb.	143,939,000
Soybean oil	42,534	lb.	93,771,000	201,932	lb.	445,184,000
Foreign Agricultural Service, U. S. Department of Agriculture						

**PROCESSING OPERATIONS.** Reported by Bureau of the Census for April and May 1960.

Primary products except crude oil at crude oil mill locations: Production, shipments and transfers, and stock, May 1960-April 1960 (1,000 tons)

	Shipments				Stocks end of month May 31, April 30, 1960
	Production	May 1960	April 1960	May 1960	
Soybean:					
Cake and meal	752.7	753.8	742.4	715.8	134.2 123.9
Millfeed (hull meal)	12.4	14.1	12.9	13.6	3.6 4.1

Soybeans: Net receipts, crushings, and stocks at oil mills, by states, May 1960-April 1960 (thousands of short tons)

	Net receipts at mills <sup>1</sup>		Crushed or used		Stocks of mills	
	May 1960	April 1960	May 1960	April 1960	May 31, 1960	April 30, 1960
U. S.	805.3	690.4	990.6	992.8	1,434.9	1,620.2
Arkansas	(*)	8.7	23.8	24.6	(*)	84.8
Illinois	253.1	302.5	267.1	308.4	293.9	307.9
Indiana	(*)	(*)	(*)	(*)	(*)	(*)
Iowa	171.8	72.0	170.0	158.9	249.8	248.0
Minnesota	58.8	66.5	73.0	74.5	63.0	77.2
Mississippi	1.7	(*)	29.2	32.1	46.8	74.3
Missouri	(*)	(*)	(*)	(*)	(*)	(*)
Nebraska	(*)	(*)	(*)	(*)	(*)	(*)
North Carolina	1.5	2.6	11.6	13.5	48.3	58.3
Ohio	62.9	39.7	90.6	92.7	127.8	155.5
Tennessee	68.5	63.9	97.8	68.4	131.8	161.2
All other	187.0	134.5	227.5	219.7	473.5	453.0

Note: Detail figures may not add to totals because of independent rounding. <sup>1</sup> Net receipts for each state are derived from the quantity of beans crushed and net change in stocks. <sup>2</sup> Included in "All other" to avoid disclosure of figures for individual companies.

Soybean products: Production and stocks at oil mill locations, by states, May 1960-April 1960

	Crude oil (millions of pounds)		Cake and meal (thousands of tons) <sup>1</sup>	
	Production	Stocks	Production	Stocks
May 1960	363.9	366.4	149.6	169.5
1960	8.8	9.0	1.0	1.3
Arkansas	99.8	117.3	40.3	54.7
Illinois	162.0	57.6	17.6	21.6
Indiana	26.3	26.7	36.7	30.7
Iowa	10.5	11.7	3.1	2.7
Minnesota	4.0	4.8	0.8	1.5
Mississippi	34.1	35.0	13.2	13.2
Missouri	35.4	24.9	8.7	7.0
Nebraska	83.0	79.5	26.2	34.5
North Carolina	4.0	4.8	0.8	1.0
Ohio	34.1	35.0	13.2	13.2
Tennessee	34.1	35.0	13.2	13.2
All other	34.1	35.0	13.2	13.2

Note: Detail figures may not add to totals because of independent rounding. <sup>1</sup> Includes millfeed (hull meal). <sup>2</sup> Included in "All other" to avoid disclosure of figures for individual companies.

**SUPPLY AND DISTRIBUTION** of the soybean crop, 1956 through 1959 crop years, reported by Agricultural Marketing Service (1,000 bushels).

	1959-60	1958-59	1957-58	1956-57
Carryover, Oct. 1	62,390	21,083	9,897	3,731
Production	537,895	579,713	483,715	449,446
Total supply <sup>1</sup>	600,285	600,796	493,612	453,177
Farm use, including seed for season	31,000	28,000	34,000	42,000
Quantity remaining for processing, export, or carryover	569,285	572,796	459,612	411,177
Disappearance, Oct. 1 thru May 31:				
Crushed for oil or processed <sup>2</sup>	327,053	279,069	238,458	219,271
Exported	97,241	79,406	65,875	64,908
Total	367,754	358,475	304,333	284,179
Balance on June 1, for processing, export or carryover	201,531	214,321	155,279	126,998

<sup>1</sup> Imports not included because negligible. <sup>2</sup> No allowance is made for new crop crushings prior to Oct. 1. <sup>3</sup> Estimated. Distributed by branch market news office.



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elevates grain to 100 feet! conveys up to 600 feet!

The VAC-U-VATOR 3500 Series with a greater capacity than ever before is the largest mobile, pneumatic grain handling machine ever made. Ideal for terminal elevators, large flat storage

operations and marine applications, this 3-stage new VAC gives you maximum performance at low fuel and maintenance cost. And it's built to take the pounding of the toughest daily use.

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1. **New low silhouette...** Now 18" lower to permit movement through loading doors, under trees and around grain elevator obstructions. Easier to reach for assembly and servicing. More accessible hydraulic boom.
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3. **Improved fan design...** Fan blades lock onto shaft for positioning and service. Improved bearing mounting for all power requirements.

4. **More Power . . .** 3500 Series available with two larger power units. IH V8 gasoline 180 hp, or with Cummins 160 hp diesel. Interchangeable in this series.
5. **Improved air lock . . .** In line with grain flow for faster discharge. Hydraulically driven. New mounting facilities servicing while cyclone is in place and insures closer tolerances.
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**VAC-U-VATOR DIVISION • 121 N. Island Avenue • BATAVIA, ILL.**

**PRICES.** Average prices for soybeans received by farmers, effective parity, and support rates, reported by Agricultural Marketing Service (dollars per bushel).

Average farm price	May 15, 1960	Apr. 15, 1960	May 15, 1959	May 15, 1960	1960	National average price support rate		
						Effect- ive parity as percent	Av. price from bu.	crop
2.00	2.02	2.13	2.93	68	1.85	1.85	2.09	
Average farm and parity prices from Crop Reporting Board.								

Soybean prices compared with market value of soybean oil and soybean meal

Average price	Soybean oil		Soybean meal		Value of oil and meal from bu.	Market soybean price No. 1 yellow soybeans of oil Ill. pts.	Spread between oil and meal
	at crush- ing plant	Value of soy- beans <sup>1</sup>	Bulk price Decatur	Value from bu. of soy- beans <sup>1</sup>			
	Cts. per pound	Dollars	Dollars per ton	Dollars			
May 1960 <sup>2</sup>	8.1	0.89	54.25	1.27	2.16	2.10	6
Apr. 1960	7.9	0.87	56.50	1.33	2.20	2.11	9
Mar. 1960	7.7	0.85	55.85	1.31	2.16	2.08	8
Feb. 1960	7.6	0.84	57.50	1.35	2.19	2.06	13
Jan. 1960	7.7	0.85	61.50	1.45	2.30	2.11	19
May 1959	9.5	1.04	55.40	1.30	2.34	2.23	11

<sup>1</sup> Based on assumption that a bushel of soybeans yields 11.0 pounds of oil and 47.0 pounds of meal. Note: This table is for statistical comparison only. It does not reflect actual operating margins since prices are simple averages and do not take into account location differentials or actual purchases and sales of soybeans, soybean oil or soybean meal. Agricultural Marketing Service, U. S. Department of Agriculture.

**FEBRUARY USE OF VEGETABLE OILS** for March and April 1960. Reported by Bureau of the Census (million pounds).

Production, consumption in selected products: Factory and warehouse stocks—selected edible oils: Production, consumption, and factory and warehouse stocks April 1960 and March 1960

	Cottonseed oil		Soybean oil	
	April 1960	March 1960	April 1960	March 1960
<b>Production:</b>				
Crude oils	130.9	*181.3	366.4	*379.4
Refined oils (once-refined) <sup>1</sup>	136.2	159.6	273.2	291.4
Consumption in refining <sup>1</sup>	146.6	172.3	285.1	304.4
Consumption in selected edible and inedible products, <sup>2</sup> total	96.8	102.6	264.6	287.9
Consumption in edible products, total	96.4	102.2	246.4	270.1
Baking or frying fats	26.3	30.8	91.5	96.2
Salad or cooking oil	58.0	59.2	59.0	71.1
Margarine	9.7	9.8	92.3	99.3
Other edible products <sup>3</sup>	2.4	2.4	3.6	3.5
Stocks, end of months, <sup>2</sup> total	495.7	*520.3	595.9	*585.8
Crude oils	124.2	167.1	336.4	*344.0
Refined oils	371.5	*353.2	259.5	*241.8

<sup>1</sup> Revised. <sup>2</sup> Production of refined oils covers only once-refined oil. Degummed soybean oil is reported as crude oil. <sup>3</sup> Includes hydrogenated fats (vegetable and animal) and other fats and oils "in process." (e.g. refined cottonseed includes stocks of stearin). <sup>4</sup> Includes confectioners fats.

**TERMINAL STOCKS.** Agricultural Marketing Service's commercial grain stocks reports for close of business on Friday or Saturday preceding date of report (1,000 bushels)

	May 24	June 1	June 7	June 14
<b>U. S. soybeans in stock and afloat at domestic markets</b>				
Atlantic Coast	2,438	2,251	2,329	2,089
Gulf Coast	3,537	3,308	4,230	4,215
Northwestern	2,495	2,633	2,542	2,542
Lower Lake	7,162	6,645	6,667	6,141
East Central	3,436	3,332	3,124	2,996
West Central and Southwestern	3,687	3,562	3,463	2,561
Total, current week	22,755	21,731	22,355	20,544
Total year ago	20,097	20,680	19,883	19,467
<b>U. S. soybeans in store and afloat at Canadian markets</b>				
Total, current week	216	201	276	352
Total, year ago	320	135	408	332
<b>Total stocks in above positions</b>				
Current week	22,971	21,932	22,631	20,896
Year ago *	20,417	20,815	20,291	19,799

\* Includes all soybeans in public elevators, including government-owned stocks, at 45 principal markets. Does not include stocks in elevators attached to crushing plants, and other processing facilities.

**Primary receipts (1,000 bu.) of soybeans at important interior points for week ending:**

	May 20	May 27	June 3	June 10
Chicago	175	368	271	307
Duluth	76	282	189	410
Indianapolis	43	52	39	36
Kansas City	178	153	178	171
Minneapolis	245	503	322	191
Omaha	32	16	16	41
Peoria	44	32	51	48
St. Joseph	—	—	2	6
St. Louis	6	2	—	4
Toledo	63	47	58	61
Wichita	10	12	10	10
Totals	872	1,467	1,136	1,285
Last year	968	905	713	500
CCC-owned stocks of soybeans				
in Chicago	1,139	1,139	1,139	1,139
Total Chicago soybean stocks	5,412	5,030	4,982	4,821

**INSPECTIONS.** Soybeans inspected by grade and percent, reported by Agricultural Marketing Service.<sup>1</sup>

	April 1960 <sup>2</sup>	March 1960	April 1959	Oct. 1959-Apr. 1960	Oct. 1958-Apr. 1959
	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.
bu. Pet.	4,721	22	3,961	23	5,887
No. 1	4,721	22	3,961	23	5,887
No. 2	11,789	55	8,034	48	9,044
No. 3	3,565	17	3,132	19	2,473
No. 4	920	4	1,138	7	1,217
Sample	494	2	484	3	638
Total	21,489	100	16,749	100	19,259
Carlot	1,000	1,000	1,000	1,000	1,000
receipts					
Alton	83				
St. Louis	592	556			
Omaha	91				
Henderson	29	86			
Indiana Harbor	117	115			
Kankakee	257	120			
Keokuk	161	74			
Kansas City	192				
Stoneville	84	220			
Chattanooga			638	500	
Memphis			25		
Burlington			127	811	
Total	6,250				2,635
<b>Receipts</b>					
Chattanooga			638	500	
Memphis			25		
Chicago			127	811	
New Orleans			4,851	3,182	
Mobile			43		
Port Allen			1,018	456	
Total	6,702				4,989

Agricultural Marketing Service, U. S. Department of Agriculture.

**PRICE SUPPORT.** Loan and purchase agreement totals, loan repayments and quantities delivered through May 31 on 1959-crop soybeans, reported by Agricultural Marketing Service, USDA (bushels).

	Warehouse and farm loans	Purchase agreements
Total under loan	Quantity repaid	Quantity delivered
45,318,423	22,883,453	40,691
		7,060,962
		0

Through May, loans repaid on 22,883,453 bushels of 1959-crop soybeans were mostly in the following states: Ark., 1,746,834 bushels; Ill., 4,590,813 bushels; Iowa, 5,045,969 bushels; Minn., 4,732,380 bushels; Mo., 2,624,165 bushels; Ind., 878,892 bushels; and Miss., 922,879 bushels.

May 31 was the maturity date for loans on 1959-crop soybeans.

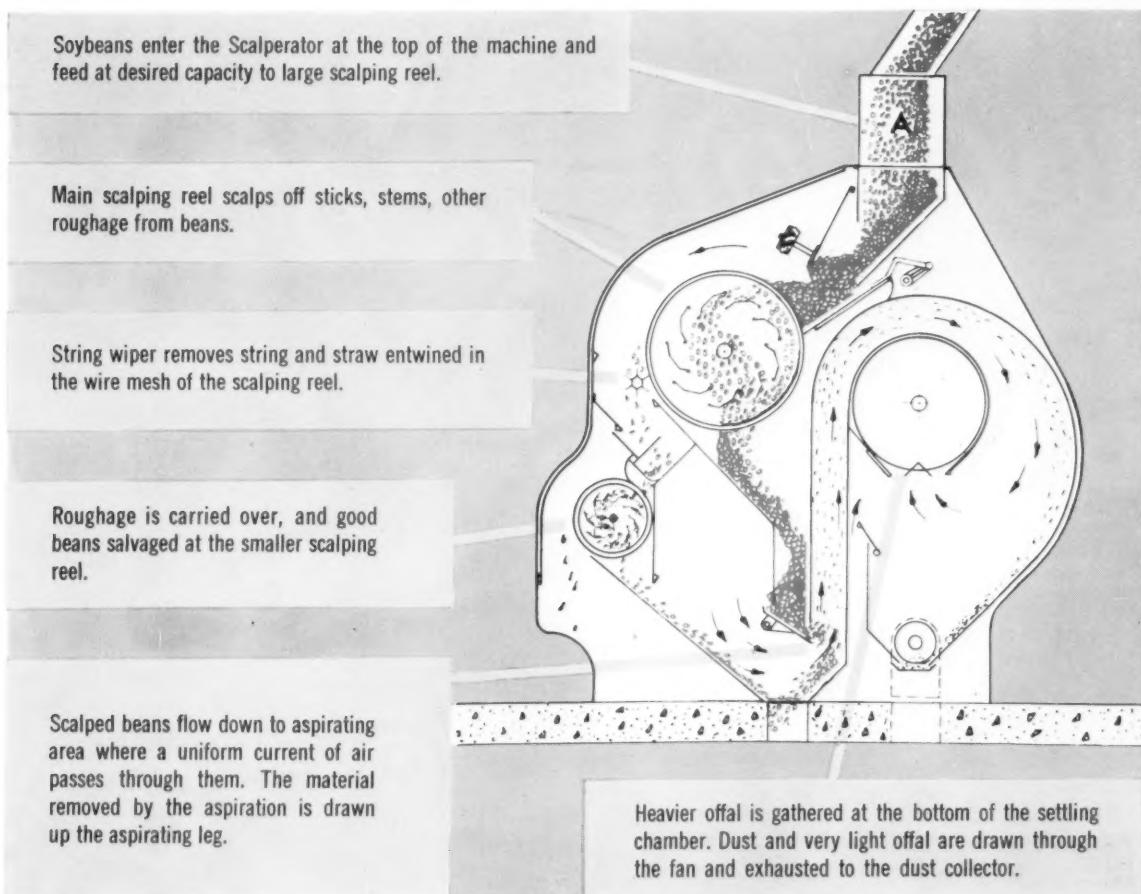
**MELLORINE.** Production of mellorine and other frozen desserts made with fats and oils other than milkfat in the United States during May totaled 4,605,000 gallons, reports Agricultural Marketing Service.

	Estimated 1954-58 av.	1954-58 av.		
	1958 <sup>1</sup>	1959	1960	58 av. 1959
		Thousand gallons		Percent
January	1,861	2,238	2,325	+36 +9
February	2,097	2,335	2,505	+38 +15
March	2,604	2,759	3,440	+37 +3
April	2,898	3,415	3,685	+38 +8
May	3,432	4,105	4,335	+40 +6
Five-month total	12,892	14,852	16,290	+36 +8

<sup>1</sup> From enumerations.

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Note how the unique scalping and aspirating features make a Carter Scalperator ideal for use on soybeans as they are received, particularly ahead of drying operations.



Carter Scalperators have high capacity with low power requirements. They are non-clogging and easy to clean when bean varieties are changed, or other grains are to be cleaned.



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Yet No Increase in Price**

Wherever grain is dried, the name Shanzer is known for performance and dependability.

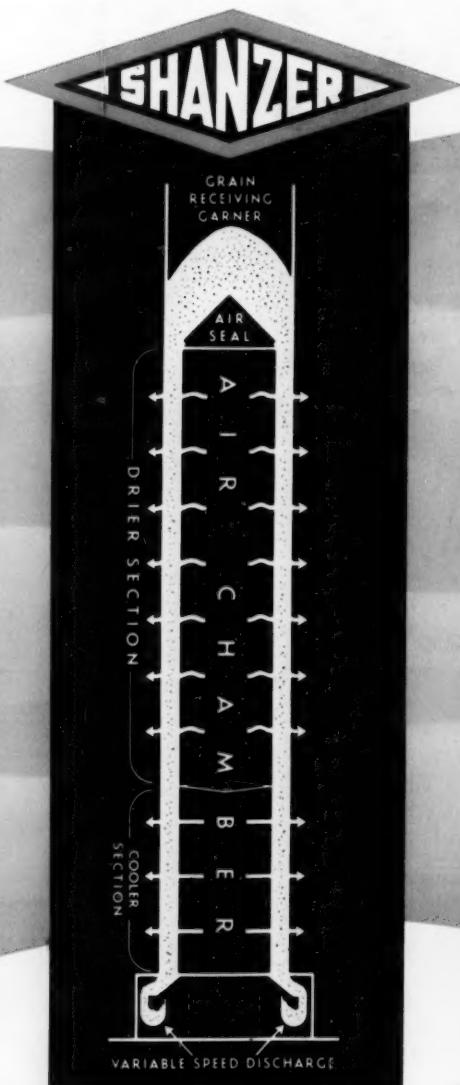
Now, from the originators of famous screen column design, comes Shanzer's all new *Thirtieth Anniversary Line*. Every new drier bearing the Shanzer name incorporates proven screen column efficiency plus the remarkable *Thermo-Flo* principle for truly spectacular bushels-per-hour drying performance.

\*\*In months of engineering and field testing, under all types of conditions and with a wide variety of grains, the new Shanzer *Thermo-Flo* Driers have proved to be one of the most significant performance advances in more than two decades of drier machinery development. By every gauge and comparison - unit size, price range, quoted ratings - Shanzer's new *Thermo-Flo* Driers consistently delivered striking increases in capacity, 40% or more, over previously acknowledged industry "bests."

To the owner and operator of grain drying machinery, this is like getting "twice" the drier for every dollar invested.

You are invited to learn first hand all the exciting details on Shanzer's *Thirtieth Anniversary Thermo-Flo Line*. Contact your Shanzer representative or write to our home office address shown below.

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